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Military Miniatures

IN REVIEW

Naturally Nashorn

Dragon hits a homer with this all new kit

Live! It's a real T-55! Building the long awaited Tamiya T-55A kit

"Dana" The Big Gun On Wheels: Building the PanzerShop Dana 152mm Self-Propelled Gun

Bella Benelli: The Model Victoria Benelli M36 Mototricicio

The Challenger Challenge: The Tamiya kit gets a makeover

Sprucing up an old French Cow: Bringing the SOMUA S35 kit up to specs

Little big man: The big little Verlinden M3A1 Stuart

Tarawa '43: Part three of our series on the Italeri LVT's

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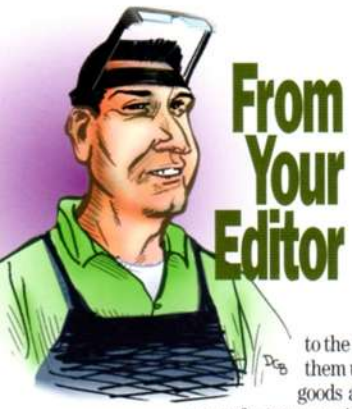
ON THE COVER:

Even if the picture is not as big, the news sure is. Two more of our armor dreams come true. Tamiya cranks out a fine-looking T-55A and Dragon comes clean with its all-new rendition of the Nashorn self-propelled gun. See the whole story on top of both pages 35 and 42.



From Your Editor

In the immortal words of Ricky Ricardo, "you got some 'splainin' to do." And I do. Many of you have called or written over the last several weeks inquiring about the status of the Modeler's Guide to the Tiger Tank. Although most of the queries have been polite, the general gist of it has been "where the hell is it!"

I have written on the subject before in the letters section, but due to the extreme tardiness of this project, I feel a more complete clarification is warranted. To give one an understanding of what is involved in a project like this, I'm going to give you a little background on the rather funky hobby business.

Like many other free market ventures, the hobby business is based on a three-tier system. Those three tiers are the manufacturers, the distributors and the hobbyshops. The manufacturer (that's us) creates product and in order to reach the largest possible audience, we rely on the distributors to, well, distribute the product. Generally, this is to the hobbyshops, who stock the products on their shelves so that you can dash in and snatch them up. Distributors also offer a cushion to the manufacturer. They pay a single price for the goods and provide credit to the retailer, so that the manufacturer doesn't have to. Now the manufacturer provides a large discount to the distributor and the distributor provides a slightly smaller one to the hobbyshop and, hopefully, everybody makes money and lives happily ever after. Naturally, the retailer could also be a mail order outlet or an Internet business. The concept is the same.

With me so far? Good. Now, given the rather dodgey financial times that we live in and given the generally conservative nature of the distribution buying agents, the secret to a successful product is the increasingly magical pre-sell. Pre-selling is a pretty simple concept. The manufacturer announces that a product will be available at some point in the future. The distributors communicate this to the retail outlets and then this is all eventually communicated to the consumer. The feedback is quite simple. Yes, we want it, No, we don't. Sometimes it's a little more "gray" than that, with the consumer catching on over a longer period of time. Many manufacturers have specific formulas for pre-selling. I don't know any of these for a fact, but based on my observations, Tamiya will pre-sell a kit for between eight months and a year, Italeri between one and three years. Many smaller manufacturers will pre-sell for six months and some not at all. The goal is always the same. Build up the maximum amount of interest in the product prior to its release in order to accomplish one thing: convince (or perhaps, "impress") the distributor to order as many as possible. Because when a manufacturer pre-sells a product, the distributor does, too and so does the retailer. Many distributors have pre-sell systems that constantly and automatically update the number of pre-orders from consumers and hobbyshops to let them know precisely how many to order when the product is released. It's a good system and it generally works well most of the time.

The important bit of feedback that the manufacturer gets from all this boils down to a single equation: demand = production. A manufacturer hopes to get the best idea on how many of a certain product to create. This is called isolating risk. Some of this is quite obvious. Tamiya, for example, is sure to manufacturer more Marders than Bren Gun Carriers, because they know that the Marder is a more popular subject. To continue the example, Tamiya is also slightly less vulnerable to risk due to their large size and their ability to realize profit over a longer period of time.

And now a word from our sponsor

To get back to the subject at hand, I did not have a formula for estimating the pre-sell time for the Tiger. Truth be told, I took a wild guess. Well, let me rephrase that by saying, I took an educated guess. My goal is the same as any large company, isolating risk. Now, as many of you know, we are, in fact, a very small company. Just a couple of guys in a small piece of office space. We're not exactly eating beans and weenies, but new Bentleys are definitely a few years down the road! Producing a project like the Tiger is a very expensive and therefore risky proposition—even in the best of economic times. The numbers involved are large. Very large—new car large, in fact. In announcing the book, my goal was to boost the pre-order number as high as possible in order to give us a reasonable expectation of how many books to print. That goal has been largely attained. Mostly due to the great response, the distributors and the consumers have really gotten behind the product. In some respects, if it weren't for the large pre-sell, we probably would have been facing a much riskier proposition.

The trick to all this (the aforementioned "magic"), no matter who you are, is to balance the amount of time you pre-sell with the general demand of the product. My big mistake was not trusting the obvious salability of our product. I felt the longer the pre-sell, the lower the risk. However, Tigers and German stuff in general are very popular. The other miscalculation was the amount of time the project would take to complete. I now believe that I set the bar a bit too high on the models themselves. Think about it, the original Tamiya "new" late Tiger I dates from 1988. Not exactly the age of styrene technology. There are exactly 43 holes in the hull of that kit for all the various tow cables, tools, etc. Basically, anything that gets stuck on the hull has at least two holes. For super-detailed models, these holes need to be plugged and filled. Then sanded, of course. The end result is a beautifully shiny finish more worthy of a Caddy than a Tiger. Texturing follows and what weld bead detail exists is concave when it should convex. Basically, we're looking at about eight to ten hours on each Tiger I model before it gets a single piece of photo-etch or an after market accessory. The Tiger II's are a more cheery story, but the bottom line is that I grossly under estimated the amount of time that it would take to finish the book. For this, I can only offer my humble apologies.

As I write this, the pre-sell is now in its 62nd week. Ouch! However, also as I write this, I gaze at the last three Tiger II models waiting to be completed on my bench. They are each about 75 percent complete. In other words, the project really is almost done (almost all of the finished material has already been edited and integrated into the completed layout). I have a small time gap now (about one week) that I must use to complete this issue and then it's back to the bench and the Tigers!

Is it going to be worth it? You bet! The kits are quite a thing to see when they are all laid out end to end. The amount of photo coverage on each is exhausting, some sections running to 60 or 80 photos. Within the 13 sections (there are 13 models) virtually every product made today for the Tiger I and Tiger II (and a few others) is discussed, used and illustrated. A fair amount of scratch building is also discussed. This is all preceded by extensive drawing and photographic coverage of both versions of the tank. This actually expanded as the book reached completion and now includes many unique images—especially of the Tiger II. There is also a discussion of interiors, zimmerit application and an expansive section on tools and detailing techniques. All this is topped off with my enormous "review bibliography" that not only lists Tiger titles, but also evaluates them for usefulness. This same format is used to present the kit bibliography, as well.

So, in closing, stay the course—thousand points of light... Oops sorry, wrong speech! Seriously, I appreciate the patience of all of you who have pre-ordered the book and your satisfaction is our number one goal!

As kind of a postscript, I should say that the Tiger book has represented a bit of a logjam for us here. Once this project is down the river, other exciting titles will follow at a somewhat brisker pace! The Modeler's Guide to the Sturmgeschütz is quite far along and I will give an official release date once the Tiger "clears the gantry." We also have one other exciting German armor title to announce in 2003. This project should be delivered, complete, to our offices in July or August. When it does, we will reveal the official release date and the subject.

—Pat Stansell

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The Mail Sack

The Magnificent Seven and the Faithful 39?

Congratulations on your 30th issue! That is a great accomplishment with the economy, fickle audiences and of course, the personalities within MMiR.

And yes, I have been there from the beginning. One of the faithful 39! I even had a letter recognized... "that late in the mail thing" ...

Just one simple thing (yes, here's the other shoe). It is really nice to include the MMiR Recce that you do at the end of each review. I also think that it would nice be to list those special things that you add to enhance those beautiful models (the tanks, not the ladies). Just a small thing!

Again a very enjoyable ride so far and I will continue to travel with you (are we there yet?) Take care and here's another nine yards!

—LTC Danny R. Herron
MDPC/STRADPC Instructor-Administrator

✉

Takin' on the T26

All right, it's time. We have two great kits of the M26 Pershing (T26E3) by DML and Tamiya. I, like many other modelers, am now in heaven. This requires immediate attention from your fine magazine on a side by side build-up comparison and how the kits compare to the real thing.

I have built both kits, they are both very nice models, but I noticed a few differences in scale dimensions and overall proportion that leads to the question—which one is correct?

The DML turret seems larger and "beefier." However, I cannot tell which is more accurate from my references. Also, the Rotoclone blower on the Tamiya kit does not appear to be correct.

I think this deserves immediate attention as an article (cover story?) in issue 31.

—Mike Malone
monster-malone@attbi.com

Hmmm... This is a pretty good idea and we'll give it some serious thought... OK, we'll do it. The differences in the blower housing are due to the manufacturer. Pershings made by Fisher Body had the flatter type of housing in their production run, while the Tank Plant favored the rounded housing. DML has actually done both types, the rounded in their T26E3 kit and the flattened type in their M26A1.

We already have at least three additional articles on the Pershing planned, including the big 1/16th scale kit from Tamiya.

✉

Duck Soup

As usual, MMiR number 31 is excellent. However, in your DUKW build, you commented on the slots that appear on the sides. This tidbit of information appeared on Track-Link (www.track-link.net) courtesy of Kurt Laughlin. "Today I found a Modification Work Order, MWO ORD G-501-W31, 7 November 1949 titled *Truck, 2-1/2 ton, 6x6, amphibian (GMC DUKW 353)* To remove existing corrosion and prevent future corrosion on areas enclosed by the side panel rub rails." This document describes how to open up the side ribs (actually hat sections) so that they don't hold water. The end plates on each rub rail were removed and a number of four-inch long openings were cut into the rails. The openings were cut with an air hammer and chisel or a cut-off wheel. (Torch cutting was specifically prohibited as it could cause a problem with the petroleum-based preservative trapped in the rails.) The edges were ground smooth. The interior was sandblasted with a hose and the gunk blown out with compressed air. The exterior seams where the rails were welded to the hull were blasted clean from the outside. Zinc chromate primer was next sprayed inside and out and any runs brushed out. This was followed by spraying a rust-preventative over the zinc chromate. Runs and lumps were to be smoothed out here as well. After that last coating had hardened the outside was repainted olive drab."

Note the date. This does not mean that these slots were impossible on a WWII vehicle, just very unlikely. Also, if a WWII vehicle was "slotted," it is doubtful it would have ended up exactly matching the pattern specified four to six years later. Sometimes information shows up. The order was issued in 1949 for DUKWs that were still in service, not new builds (since there weren't any).

—Saul Garcia
sharkmouth@worldnet.att.net

Well, we have this to say about that... A common source of MWO's was feedback from the field. This could include modifications made at even the company level. The fact that photos of wartime DUKWs exist with these modifications could be EXACTLY why the MWO was issued in the first place. Also, this MWO could have been issued before under another date as many, many other MCOs and TMs were revised in the postwar period. Clearly, the point is that the slots were not part of wartime production vehicles, but it seems almost certain that they did appear on them in the field.

✉

Dogs and cats living together...

Maybe I should begin by addressing this to the Sad Sack instead of the Mail Sack. What in the name of Christmas Past is that on the rear cover? If I didn't know I was reading the finest and most superior ARMOR (or ARMOUR for you team players) modeling magazine in the world, I would assume sabotage. What is that thing with the fan on it? Is nothing sacred? What's next, women voting?

—Patrick Welsh
toosalty@earthlink.net

Hey, as long as the advertiser pays for the ad and the material contains no pictures of naked men, we run anything—within reason, of course. Don't forget it was the ARMY Air Corps at the time. Also, we have to throw the plane guys a bone once in a while, don't we? Don't we?

✉

More Bulldog bull

Regarding the review in issue 31, I'd like to point out some more details on the M41 tank. Additional pictorial evidence can be found in *Tank Magazine* of February 1979 and IPMS-USA 3J4 of May 1991.

There are lots of more or less subtle differences between the versions of this beast. Among the more obvious are the front and rear fenders, which came in the cut back version and with straight ends—the AFV Club brass set allows this change to be made. The tool rack on the right front fender was mounted in three different ways: horizontally in front of the box, slanted with rear resting on the box, and rear in front of the box, but at one level with box top. The opening driver's hatch glides on three supports that are arranged beneath it in a crescent—again, not on all tanks. The APU exhaust muffler came in two different sizes, and I've seen the large one both on the muffler cover and beside the tool rack—at the same time and in the same Bundeswehr battalion; it seemed to depend on the company commanders' whims. The same went for spare track links. One company went without any, another carried them on the forward turret sides. The front idler wheel variants (normal road wheel or perforated all steel) also co-existed in our unit, though not on the same tank. To the right and left of the lower central engine access hatch, there are protrusions with bolts: this is where the engine cover support frame is fastened to the lower hull. Both the old Tamiya and the AFV Club kit have a third fastener in the center, which couldn't have that purpose and doesn't appear in photos; however, the vehicle shown in 3J4 seems to have a similar protrusion in that area, albeit without a bolt.

On the turret, the horizontal weld seam was either at the separation line between upper part and undercut, or some 20cm higher. The grab handles came in two varieties: butt joined, or with bent and flattened ends welded to the turret—ends up on the bottom ones, ends down on the top ones. Most always, each handle was fitted with two sliding hooks to stow crew backpacks. Above the sledgehammer, there were stowage points for either one or two .50 cal spare barrels. On the turret roof there were one or two MG columns; the loader's hatch was either surrounded by a splash rail or countersunk into a depression in the roof. At 3, 5, 7, and 9 o'clock, most commanders' cupolas had protrusions of unknown purpose—the vehicle in 3J4 doesn't have these. The same goes for three fork-like stowage points behind the loader's hatch.

Now what all these differences mean for telling an M41A1 from an A3, I've no idea. However, this one goes for all versions. The muffler covers' color depended solely on the mileage since they last received a coat of paint. A two-hour cross-country ride would discolor much of the paint or even burn it away and in time, rust would set in. This wouldn't be as bright as that on the mufflers themselves, but the things would invariably become rusty.

—Dr. Peter Schweisthal

✉

If you would like in on any of the dialog in MMiR, drop us a brief letter written on a fifty dollar bill or better yet, inscribe it on the bottom of an Accurate Armour LCT converted to a LCT (R) with 1,064 rocket launching racks mounted onto a false deck and send it to: ***Mail Sack, Ampersand Publishing Co., Inc. 235 NE 6th Ave., Delray Beach FL 33483*** *or* ***mmirpat@aol.com.*** *Letters are sometimes edited for brevity, obscenity, national security, or just to make you sound smarter.*

We sincerely regret that we rarely, if ever, are able to personally enter into correspondence with our readers.

Short Takes

The Year in Preview

The Super-Heavy Self-Propelled Mortar

60cm Mörser "Karl" Gerät 040

1:35 '39-'45 SERIES

Once upon a time there was a bunch of grown men who loved to play with model tanks. We grew to love them and eventually became one with them. And in our wildest fantasies, we never thought we'd see a plastic kit of a Karl Mörser—and now we'll have two. We never thought we'd see a plastic kit of a K5 Rail Gun—and now we'll have two. What WILL be next???

Accurate Armour

AA went and sneaked a few new things in on us in the last few months. They are **C076, M45 Conversion, $34.00** and **C079, M26A1 Conversion, $21.98 (1, 2)**. Both are for the new Tamiya Pershing and join their cool Super Pershing conversion for that kit. For more surprises, see the Accurate Armour website at www.accurate-armour.com

Aber

Do you think, maybe, that if you lived to be 100 years old, you'd ever be able to use ALL the Aber sets on a model? Well, you could still have a helluva time trying! Here's the latest list of photo-etched fantasy. **35118, Pz.Kpfw. I Ausf. A Sd.Kfz. 101, Vol.1 (Tristar), $19.99 (4); 35119, Pz.Kpfw. I Ausf. A Fenders, Vol.2 (Tristar), $16.99 (6); 35122, Ferdinand (Dragon), $22.99 (3); 35123, Elefant (Dragon), $22.99** and **35124, Fenders for Ferdinand/Elefant (Dragon), $17.99 (5)**.

With the addition of the upper hull parts, you can just about rebuild the entire Tristar kit in photo-etched brass! The new Elefant/Ferdinand will also make up into one super shiny model. So, what are you waiting for?

Academy

Here's an odd one for ya. The newest figure set from Academy is **1381, French Foreign Legion Set, $7.00 (7)**. Pretty unique subject matter, we'd say. Look for a full report in the Mini-Men section of issue 33.

Andrea

The Spanish miniature firm of Andrea has started releasing demonstration CD's, a really fantastic idea. The first is **AECDROM1, Painting Figures Multimedia step-by-step Interactive Training Course, $35.97 (8)**. The disk covers all manner of techniques and tools and contains a ton of interesting historical info about miniatures, too.

All of the video is expertly shot and some of the special effects are truly impressive. The opening shot is a close-up panning sequence of Andrea's magnificent U-boat diorama. Cool enough, we suppose, until you realize that one of the figures on the conning tower is actually a miniaturized version of the narrator! Very cool stuff.

The disk is labeled only for Windows, but any contemporary Mac user can open the individual video files using the QuickTime Player.

Our sample was kindly provided by Squadron Mail Order and more information on purchasing it there can be found at www.squadron.com

Apoxie Sculpt

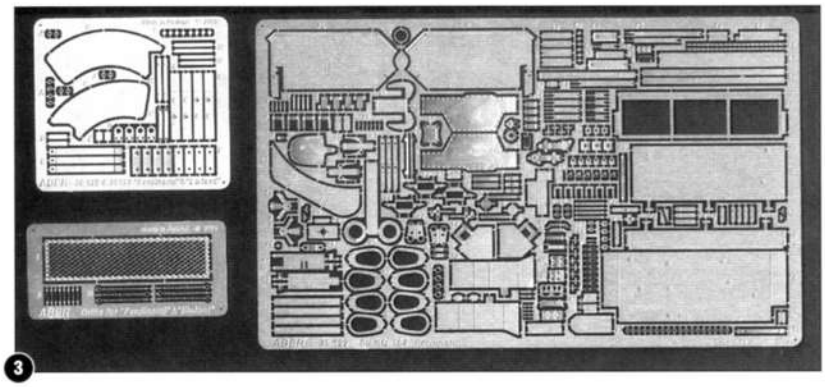
You've seen it mentioned in these pages before, but we've finally gotten our hands on some of the **Apoxie Sculpt packaging (9)**. The new 4-ounce size comes with two small plastic tubs that each contains an equal share of the putty. This is the standard type of A+B putty, you simply mix an equal part of each to get a workable "glob." The putty both cleans-up and thins with water, so this is the medium you will use to smooth out your work, as well. The 4-ouncer comes in both a black and a white color (plus a few others, too) and all the putties have a one to three-hour working time. Price is $6.00 for the 4oz. size (1/4 lb.) and $10.00 for 16 oz. (1 lb.).

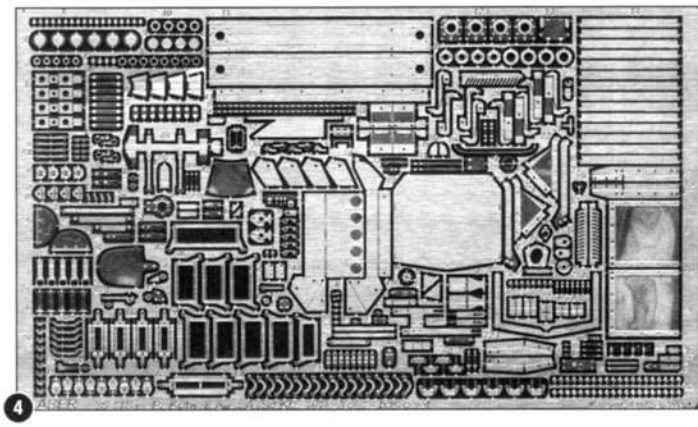
Nifty stuff! For more information, see the Aves

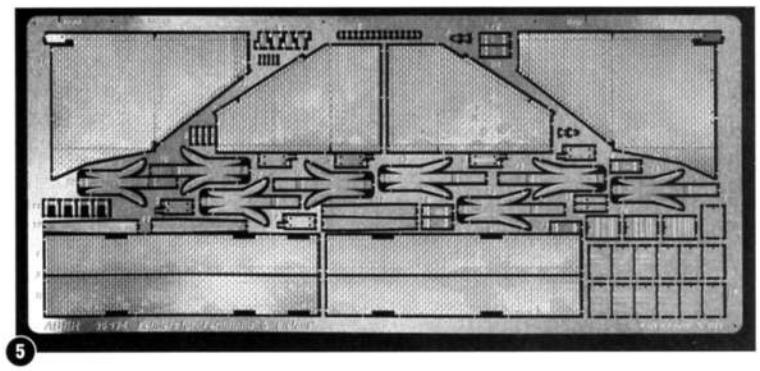
ad on page 33, or check out www.avesstudio.com

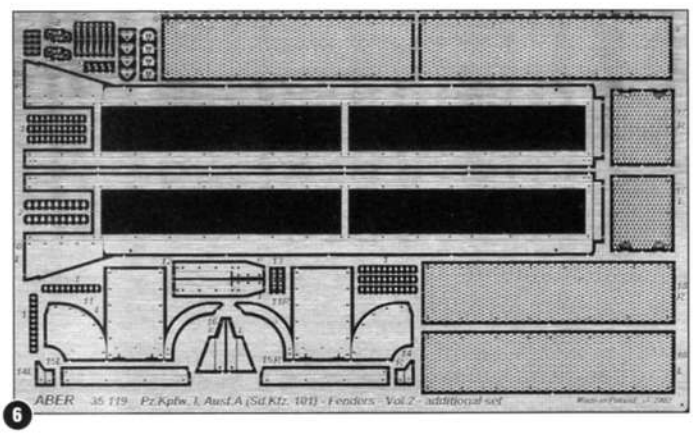
Armo

Armo, from the Czech Republic (where there's a lot of modeling going, have you noticed?) continues to hammer out an amazing line of precisely turned barrels. Here's the newest. **35704, 45mm Barrel for T-35, T-28, T-26, BT-5, BT-7 Tanks, $9.99; 35713, 7.5cm KwK 37 L/24 gun barrel for Pz. IV F1, $9.99; 35714, 3.7cm Flak 37 German AA Gun, $11.99; 35717, 15cm SIG 33 Metal barrel with resin cradle, $14.00 (10); 35721, 88mm type IV double baffle muzzle brake, $9.99; 35724, SIG 33 and Bison II Ammo, $10.50 (11); 35736, King Tiger w/Henschel Turret metal barrel, $12.99; King Tiger w/Porsche Turret metal barrel, $12.99; 35739, 88mm KwK 36 L/56 for Tiger I, $12.99; 35740, KV-1, $10.99** and **35746, 7.5cm KwK 40 L/48 gun barrel for Pz. IV. Ausf. G, $12.99.**









Many of the barrels contain delicately milled rifling and resin parts. First class stuff. Our samples and prices were provided by Mission Models.

Aztek

Aztek has introduced an all-metal version of its venerable double action airbrush. **A7778 Metal Airbrush, $219.99 (12, 13)**, looks a bit like something from the Star Wars movies with its gleaming chrome finish. It is certainly the equal of many of its contemporary metal cousins. If you have used the plastic version, it may take a little getting used to the greater weight of the brush. This is quickly replaced with that solid, confident feeling that one gets from an all-metal brush. Especially if you're from the "old-school" of airbrushing like we are.

That $220.00 price tag gets you the brush (in a cool little velvet bag) and no fewer than 9 different tips, bottles, a hose, cups and a can adapter all packaged in a beautifully milled solid wood case. All in all, a super high quality tool that you'll enjoy for years to come. Packaged the way it is, it also strikes us as making a terrific gift (leave this article somewhere she'll see it!).

The Testors Corp. distributes the Aztek line of airbrushes and accessories in the U.S., so check with your local hobby shop or mail order outlet for details. If you don't have one, Aztek products can also be found at finer art supply stores.

Blast Models

Blast is a bit new and their products really are a, well, blast. They have quickly earned a reputation for outstanding quality and extremely timely subjects. Here are just a few of the goodies now available. **BL35007K, Update set Marder III M (Tamiya), $30.00 (14); BL35008K, Update set for DUKW (Italeri), $25.00; BL35011K, DUKW Canvas Cover, $15.00; BL35013K, Borgward IV B (Full Kit), $55.00** and **BL35017K, Sherman M4A3E2 "Jumbo" full upper hull and turret, $65.00.**

The popularity of these items has been such that they are now getting hard to find. This is for good reason, as the DUKW cover, for example, is

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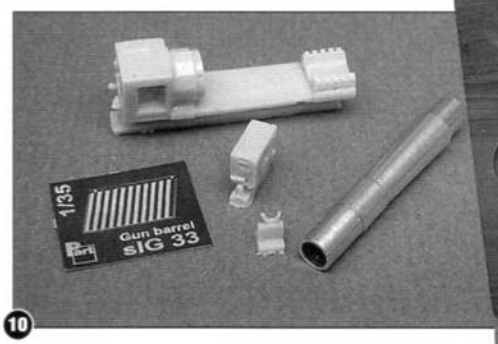

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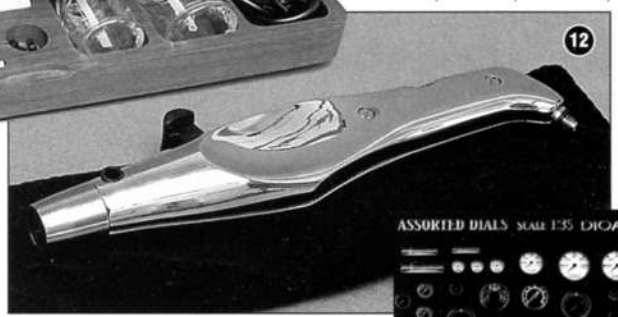
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probably the nicest soft-top set we have seen for any vehicle!

Also new and coming are two detailing and conversion sets for the Tamiya T-55. One creates an Israeli version and the other a South Lebanese tank. There is also a good-looking stowage set coming for the Panzer III. This includes tarps and a large covered stowage area for the rear deck.

Mission Models provided our samples and prices, but overseas customers can see the Blast Models website at www.blast-modesl.com

14

15

Brach Model

This Italian company continues its small, but impressive line of conversions and accessories with **BM-013 Marder III M interior set with aluminum barrel (Tamiya), $40.00 (15)** and **BM-014, Aluminum barrel for 7.5cm Pak 40, $10.00.**

The quality is always top notch with these sets and Brach favors the wafer technique on its smaller components for better fill and fewer broken parts. Brach also appears to be conscious of what else is on the market. Many of their detail sets contain unique items that do not cross over with other sets. It might just be a coincidence, but it works!

Brach's U.S. import agent, Chesapeake Model Designs, provided our samples. Brach has a nice section on CMD's website at www.chesapeakemodels.com

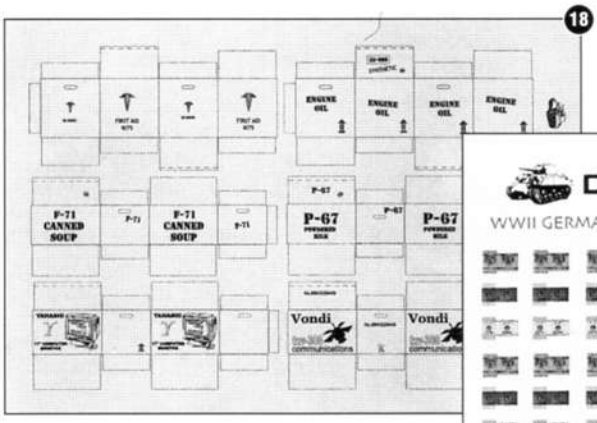
135th Construction Battalion

Now, here's a cool idea. Create a product line that not only features components to build your own buildings and structures, but also the scale equipment to do so. 135th Construction Battalion is another brainchild of the VLS Corp and, as described, it will feature everything related to 1/35th scale construction. In addition to building materials, they have also announced their intention to release a full Bulldozer kit and a GMC Dump truck conversion. Rumor has it that there are many other exciting items in the works, as well. Stay tuned!

Here are the first pieces to hit the streets. **CO001 German Timbered Wall Section, $19.95** and **CO002 Steps Set, $12.95.** As always, current information can always be found at the VLS website www.modelmecca.com

Custom Dioramics

In the land of complete diorama accessories and buildings we have the following to report. **CD1129, Short Pillared Wall Section, $17.95; CD1130, Blacksmith Shop with Forge, $29.95; CD1131, Steps, Wall Sections and Pillars, $23.95; CD1132, European Cemetery Mausoleum #1, $13.95; CD1133, European Cemetery Mausoleum #2, $13.95; CD1134, Tobruk Tank Turret Bunker, $12.95; CD6057, European Slate Roof Section, $22.95; CD6058, Building Brick Wall Section, $19.95; CD6059, European Phone Booth #1, $13.95; CD6060, European Phone Booth #2, $13.95; CD6061, Sidewalk, Street and Rubble Vignette Base, Rectangular, $9.95; CD6062, Street & Sidewalk Vignette Base, $9.95; CD6063, Street & Sidewalk Vignette Base, Round, $9.95;**



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Building (1/72), $24.95.

That 1/72nd scale stuff certainly sounds intriguing, but you really have got to check out that Blacksmith shop. It is a cool looking little item that would have a place in any scene from the 1800's right through to the post war period. And, the price is right, too!

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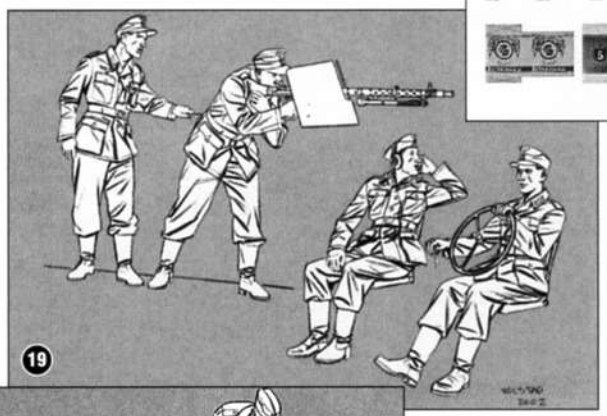
Custom Dioramics is also a VLS product line, so see the above listed website for pictures and other current dope.

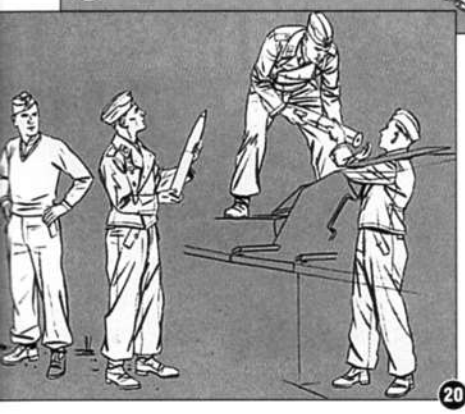


19

Dio Art

We had never heard of these Canadian cats until they dropped a few of their samples on us recently (ouch!). The line is composed of printed and "2D" items, but the have really worked the medium into something special.

Among the items we were able to take a peek at were **037, Assorted Dials, various clear gauges on acetate film in both negative and positive (16); 044, U.S. 50-star Flag, two sheets printed on both sides; 073, WWII German Cigarette packs, two sheets (17); 089, Italian (Colonies) City Signs, two sheets** and **093, Modern Generic Cardboard Boxes (18).**



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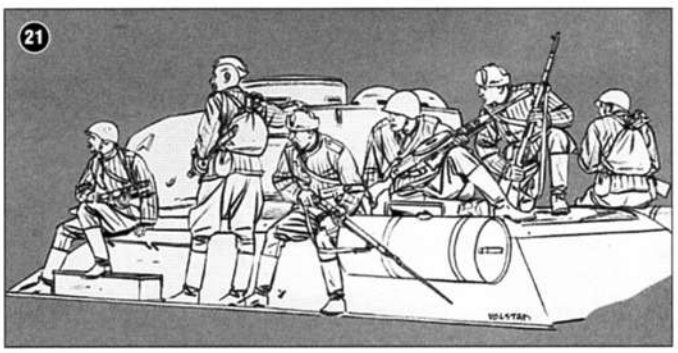
We also gleaned the following brand new items off the Dio Art website (www.angelfire.com/ns/sdg/dioart). **100, Modern U.S. Army Vietnam War Maps, two sheets; 101, WWII- GI's Pack, pistol ammo cartons, mail kit, shining patch boxes, two sheets** and **102, WWII German Army Zeltbahn v.2, two sheets.**

The quality is high and the line is actually vast, being composed of well over 100 items. All of the above mentioned items retail for a scant $4.25 USD or $6.50 Canadian.



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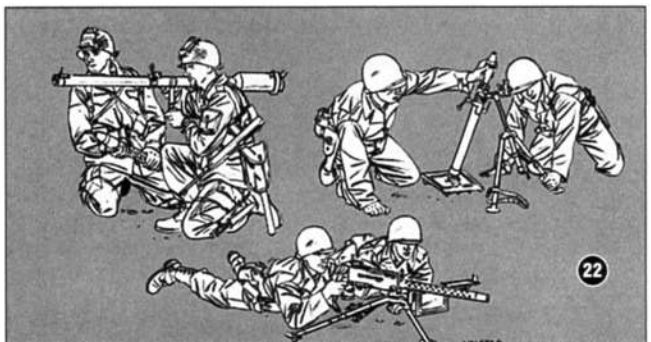
Dragon Models Limited

The 2003 Dragon catalog is bursting with new and as of yet unreleased stuff. This is the list in more or less numerical order. **3027, Modern U.S. Marines; 6062, M4A2 Sherman Okinawa; 6092, T-34/76 Mod. 1940; 6123, 7.5cm PAK 97/98; 6150, Hummel, early version; 6159 Panzergrenadiers, LAH Division Kursk 1943; 6161, Panzergrenadiers, Arnhem 1944; 6162 Winter Onset, near Moscow 1941; 9056, SdKfz. 252 Ammo transporter with trailer; 9058 StuG III G 10.5cm; 9059, Jagdpanzer IV A-0, 9060, Panther G/M10 Ersatz; 6185, T-34/76 German Army; 6186, New Tank (secret item); 6187, New Tank (secret item); CD7014, "Chateau Approach" Display Base, $24.95; CD7015, Hull Defilade Position Tank Base, $19.95** and **CD8001, European Farm**



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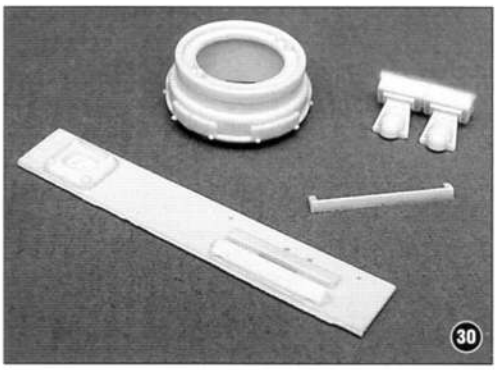
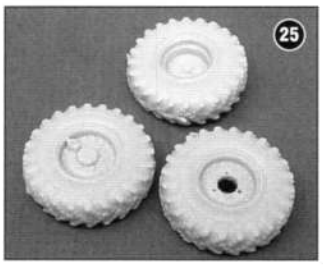
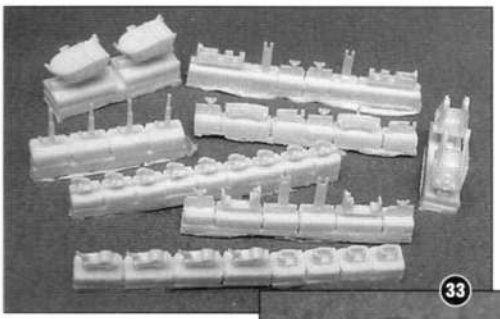
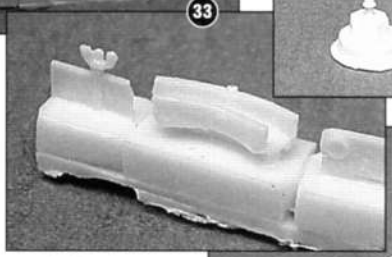
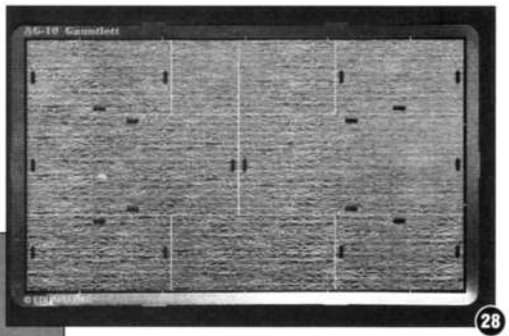
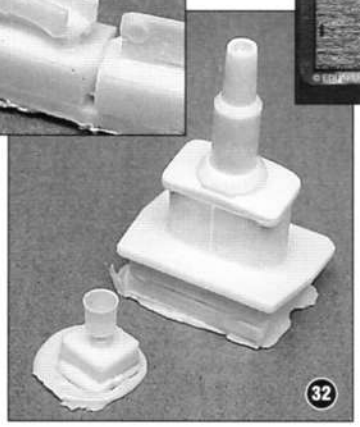


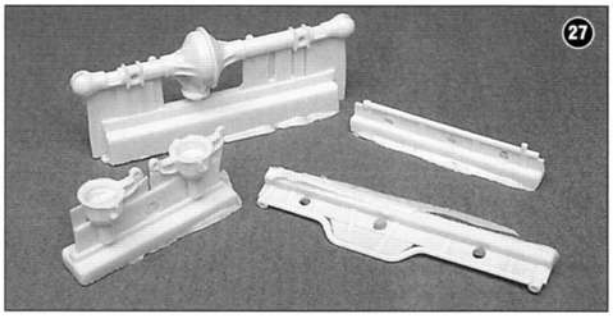


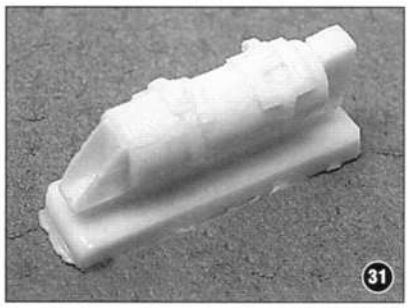












6188, M4A2 (76) Sherman Red Army; 6190, Frozen Battleground, Moscow 1941; 6191, 'Achtung Jabo!' Panzer Crew, France 1944; 6192, Sturmgeschütze Crew Reloading, Russia 1941 **(20)**; 6193, German Halftrack Crewmen **(19)**; 6194, Panzergrenadiers, Wiking Division, Hungary 1945; 6195, Fallschirmjäger Regiment 3, Sicily 1943; 6196, German Anti-Tank Team, France 1940; 6197, Soviet Infantry Tank Riders **(21)**; 6198, US Army Support Weapon Teams **(22)** and 6199, 2nd SAS Regiment, France 1944 **(23)**. Of course, you probably already have heard about **6200, German Railway Gun 28cm K5(E) Leopold and the Karl is now on the streets.** Whew!

As always, prices and precise release dates are all TBA. See the new and improved Dragon Models website at www.dragonmodels.com

Dream Catcher Accessories

This small Belgian company continues to do its "2D" thing with the following new items. **DCP008, The Korean War Maps; DCP018, World War II Soviet Propaganda Posters (24); DCP077, World War I French Propaganda Posters; DCP081, Spanish Civil War Posters, Republican/Pro Soviet (5); DCP083, Spanish Civil War Propaganda Posters/Madrid; DCP084, Spanish Civil War Posters, Republican/Public Awareness (8); DCP091, Modern Wars/Regional Conflicts Posters, Gaza Strip/Ramallah (6); DCP093, World War II Propaganda Posters, Soviet Union #2; DCP098, World War I Posters, The Red Cross; DCP102, Modern Wars/Regional Conflicts Posters, Lebanon & Pro Palestine (1); DCP104, Modern Wars/Regional Conflicts Posters, Lebanon & Pro Palestine #2; DCP107, World War II Japanese Propaganda Posters #2, DCP143, World War I French Propaganda Posters #2, 1/76 scale, DCP76018, World War Soviet Propaganda Posters; DCP76019, World War II Italian WWII Propaganda Posters** and **DCP76020, World War II German Recruitment Posters (2)**. All sheets are printed in full color.

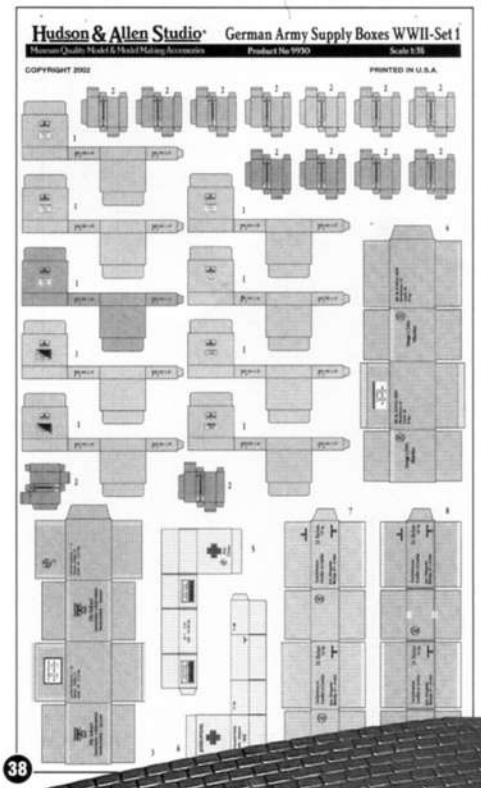
A few new accessory items are also up for grabs. **DCWP012, Replacement Tires set for BTR 152, 9.90 euro (25); DCWP017, Modern Vehicle Stowage, 6.00 euro;** and **DCWP018, Merkava IIID Baz Steel wheel set (Academy), 15.00 euro (26)**, are all now available.

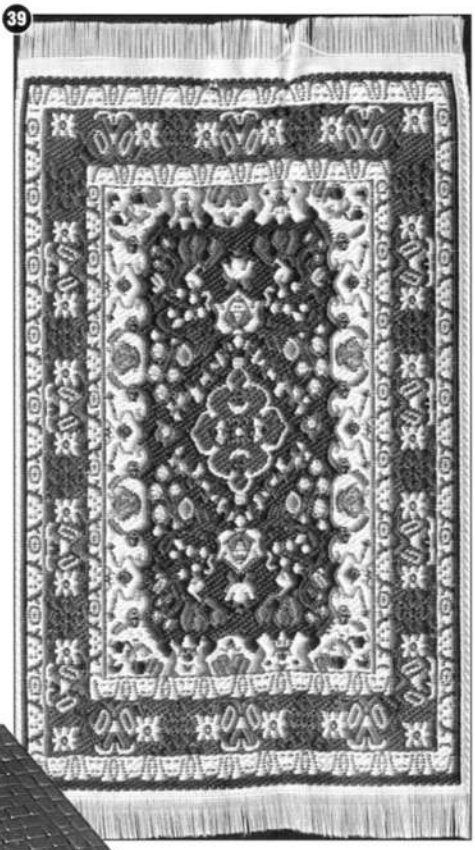
Dream Catcher also continues its super line of IDF figure with **DC54006, Under Fire, 3 IDF Soldiers.** Great action poses and well molded, too. Look for a full review of this set in the next edition of Mini-Men.

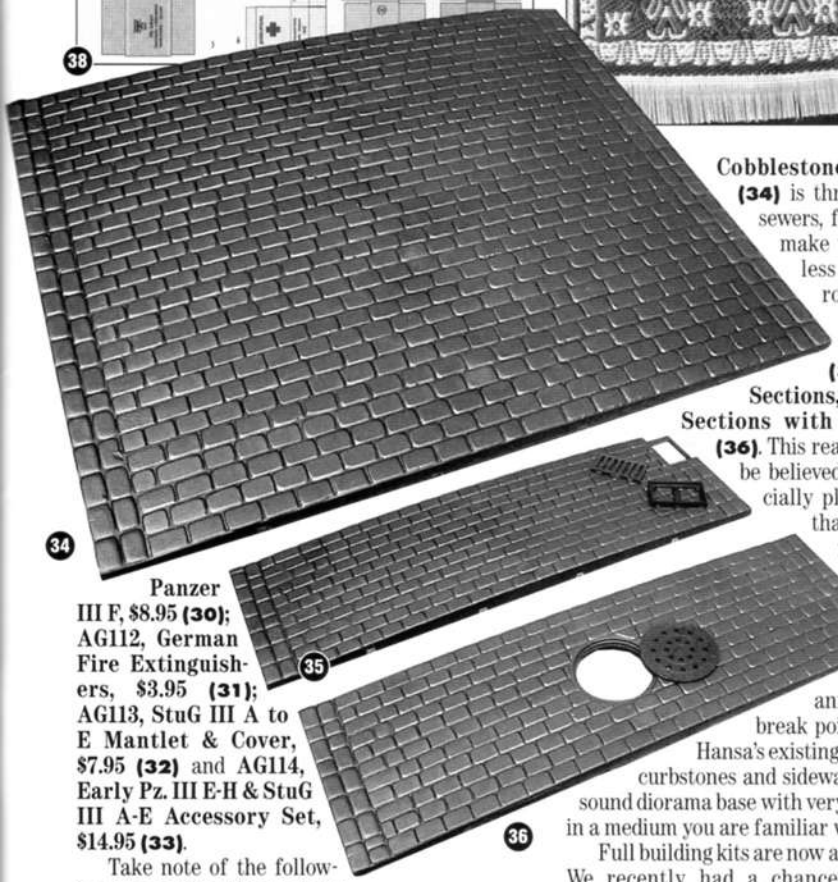
For more information contact Dream Catcher, 4, rue de la Saboterie, B-6810 IZEL, Belgium.

Gauntlett

These crazy dudes continue to create odd, unusual and just plain cool accessory items. Check this out: **AG108, M8 Moveable Front Axle, $10.95 (27); AG109, WWII American Vehicle Antenna/Aerial, $6.95 (28); AG110, Wood-grained Photo-etch DUKW Deck, $12.95 (29); AG111, Conversion of Panzer III G to**







Panzer III F, $8.95 (30); AG112, German Fire Extinguishers, $3.95 (31); AG113, StuG III A to E Mantlet & Cover, $7.95 (32) and **AG114, Early Pz. III E-H & StuG III A-E Accessory Set, $14.95 (33).**

Take note of the following, please. The M8 axle is for Tamiya, the American aerial has the rod molded right into the base (!), the DUKW Deck is etched by Eduard, the Panzer III stuff is cool, the extinguishers are even cooler and the StuG detail set is simply awesome (got all that?).

All of the above is exquisitely molded resin love in a small bag. M&Models is the exclusive here and for more details, see their ad on page 53.

Hansa Systems

That familiar crack you hear is the bat that Hansa broke while hitting the ball out of the park on its latest styrene building component. **280-S, Cobblestone Street Sections (34)** is three pieces, including sewers, for $12.95 and it will make up a full and seamless section of urban roadway when combined with **281, End Sections, $3.95 (35); 282, Middle Sections, $5.95** or **283, End Sections with sewers for $3.95 (36).** This really has to be seen to be believed and we were especially pleased with the fact that the various components fit together perfectly. Multiple sections would be simple to form with no annoying and obvious break points. Join these with Hansa's existing line of cobblestones, curbstones and sidewalks and you've got a sound diorama base with very little effort. And all in a medium you are familiar with.

Full building kits are now available from Hansa. We recently had a chance to peruse **35004, Normandy Farm Barn, $38.95 (37).** This is a very competently designed kit that contains everything (and we mean everything) to create a miniature structure. In this case, it's a sturdy looking European barn with a small outside pen area. The structure is complete inside and out and is made of Hansa's unique "Lego" style parts system. All the various components can, at first, seem a little intimidating, but the clearly written and logical instructions can take you through it easily.

The roof panels of the barn can also be purchased separately as **600, Corrugated Panels.** This is a four-piece bag for $3.95.

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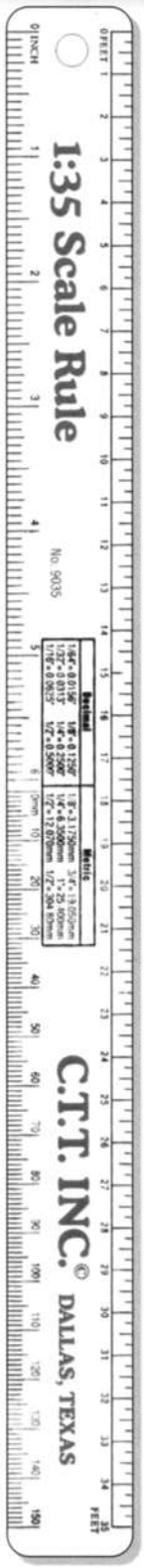

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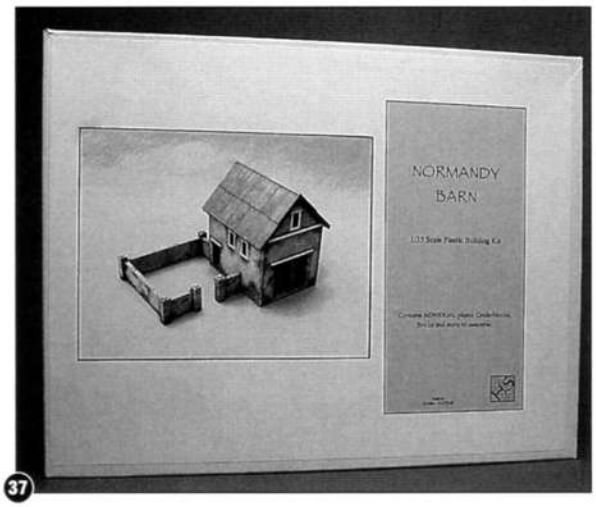

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For more information on Hansa and how to order their high quality products, see their ad on page 22.

Hudson & Allen

Looky what we saw new from H&A. **9911, WWII German home front posters, $5.00; 9918, WWII period French commercial posters, $5.00; 9921, WWII French/Low countries home front posters, $5.00; 9930, WWII German ammo & supply boxes set 1, $6.00 (38); 9931, WWII German ammo & supply boxes set 2, $6.00; 9927, Woven Oriental rug Green, $10.95** and **9928, Woven Oriental rug Red, $10.95 (39)**.

Some of the printed products have been available for some time, but these have been researched to be the correct sizes as printed in the periods represented and most of the images are new to us. As always H&A's packaging supports the specific products with modeling tips and historical notes. We are told that the German WWII cardboard supply boxes are the result of many years of research and collecting and have never been correctly represented in miniature and we'd have to go along with that. The box types include small arms ammo, grenades, canned goods, clothing, star shells, soap, lice powder, bandages, and foot salve, to name just a few.

Those miniature woven thread carpets would certainly add color and texture to your figures and dioramas and are a departure from standard printed materials.

For more information, contact Hudson & Allen Studio, PO Box 1905, Monroe, MI 48101. Fax 734-457-2179 and e-mail Kaosen056@aol .com

Hussar Productions

A brand new line, Hussar is currently offering the following new waterslide decals. **35023, Polish Shermans, Part 1, markings for 15 different vehicles, $8.99; 35024, Polish Shermans, Part 2, markings for 11 different vehicles, $8.99** and **35025, Polish Shermans, Part 3, markings for 15 different vehicles, $8.99 (40-42)**.

These are printed in a very high quality manner and the registration is just about perfect. Certainly just the thing for that M4A2 or M4A1 conversion you've been sitting on.

Hussar is being distributed by our buddies at Air Connection and for ordering information, see their ad on page 18.

Italeri

And the line grows and grows. The envelope, please. Thank you. And the new items are: **07007, Pz.Kpfw. IV (1/72), $9.00 (44); 06396, LVTA5, $35.00** and **06397, M-60 A3 Patton, $35.00 (43)**.

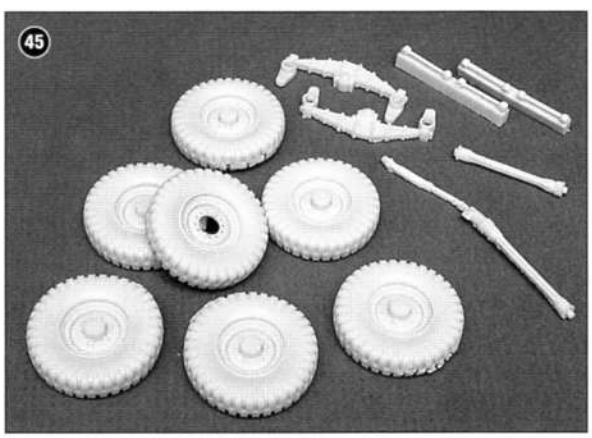
How come no one else releases this much stuff?

Lincoln County Line

More in the line of value priced items under the ever-growing VLS umbrella. **LC0018, WWI Pillbox Bunker, $18.95; LC0019, Small Anti-Aircraft Revetment, $13.95** and **LC0020, Chateau Wall, $14.95**.

MIG Productions

MIG, that super prolific Spanish dude has cranked out **MP35-016, Europe DUKW Wheels (45)**. This set provides seven new detailed wheels and some of the more delicate suspension components beefed up for the Italeri Ducky. There is also a spiffy-looking new **Russian Tank Crew** (2 figures) and **Early Panther D Engine Grills**. Stock numbers on these last two are TBA.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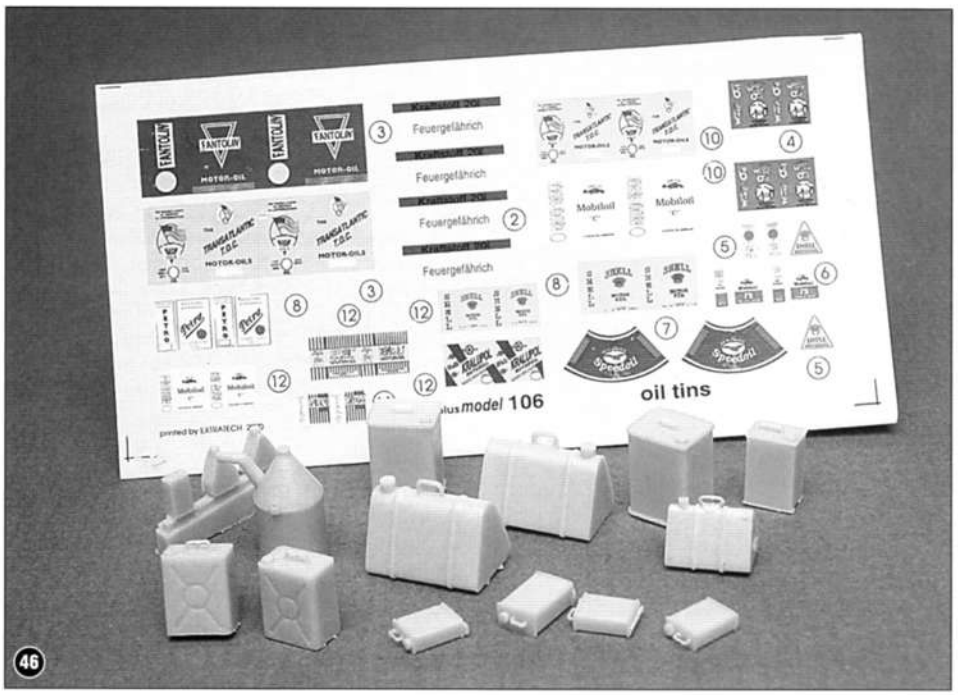

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This wild man is always tucking new items into his line, so for up to the minute information, see his website at www.migproductions.com

Model Point

Model Point, makers of all things pointy, now offers **3534, Pak 44 L55 12.8cm Barrel Sd.Kfz.186.** This piece includes a rifled bore and is to fit either of the Dragon Jagdtigers for $15.00.

Both Mission Models and VLS carry the line in the U.S.

Panda Models

Panda, a Chinese company that may or may not be tied in with Dragon (not that it matters), has the following rather ambitious release list covering several exciting categories.

1/35th scale armor looks like this. **35501, PLA Type-95 MBT; 35502, PLA Type-9x Plus; 35503, Leopard 2A6 w/120mm L/55; 35504, Strv 122 Leopard 2; 35505, 2S6 "Tunguska" Self-Propelled Anti-Aircraft System; 35506, JGSDF 35mm PAAG Type 57; 35507, British CVR(T) Striker (SWB); 35508, British CVR(T) Spartan MCT (SWB); 35509, British ADAD Stormer HVM (LWB)** and **35510, British Stormer TRV (LWB).** Impressive.

Tons more to add in their line of 1/35th scale helicopters. **35001, CH-47A "Nam;" 35002, ACH-47A Gunship; 35003, Chinook C.1 RAF; 35004, MH-47 AFSOC; 35005, UH-ID 1st Cavalry; 35007, UH-1D NATO; 35008, UH-1N US Navy; 35009, UH-1N Gun Ship; 35010, HR-1N USMC MEU; 35011, UH-1N "Marine One;" 35012, UH-1Y "Super Huey;" 35013, Eurocopter Eh101 Merlin HAS.1 Royal Navy; 35114, Eurocopter EH101 NATO; 35015, Lockheed Martin US101; 35116, RAH-66 Commanche; 35017, Eurocopter PAH-2 Tiger HAC (German Version)** and **35018, Eurocopter Tiger HAP (French).** Wow!

Not that we care, but they have also announced **two versions of the B17 in 1/32nd scale (the G and F).** Sorry, but these really should be in 1/35th scale. Think: support vehicles and figures. Just our two cents. OK, we can't wait. Let's get it on!

Plus Models

Plus, yet another Czech model maker, has some pretty hot stuff to lay on your modeling plate. Watch your fingers! **075, Meal Set, $12.00; Road Quad Stones and Railings, $6.50; 106, Oil Tins (25 resin parts and a decal sheet), $12.00 (46); 116, Equipment of German Kitchen, Crockery, WWII, $22.95; 125, Ammunition Transportation Containers, Modern Style, $14.99; 126, Canisters, Modern Style, $19.95; 127, U.S. Common Equipment Vietnam, $12.95; 133, Pzkpfw. 38(t) engine set, $22.95; 152, Metal Buckets and Cans, $12.95** and **153, Field Laundry, $23.95.**

Those oil tins are to die for and we can see them on our vehicles and dioramas for years to come. They all depict brands from the 30's and 40's with the labels perfectly reproduced with waterslide decals. Our samples were provided by Mission Models and for ordering information, see their website at www.missionmodels.com

Precision Mix Systems

Hey, there is a nifty **new paint mixing and storage system (47)** in town. It's called the "Precision Mix" system and it's designed to completely change the way you mix paint. The key features to this system are the ability to mix custom colors precisely without the mess and unpredictable results involved in hand mixing.

The entire system is based on adapter caps that replace the manufacturer's cap. The adapter caps have a small opening at the top of the cap and snugly fit all sizes of dispensers, come in seven sizes at present and are in a letter format, size A being the smallest. The adapter caps fit on virtually every type of hobby paint, including Tamiya, Testors, Gunze Sangyo, Floquil, AeroMaster, PollyScale and Pactra. The significant omission is the large 23ml Tamiya bottles, but a 30ml replacement bottle is provided as part of the system for this (this allows room for thinner).

The caps can remain on your paint containers after use to eliminate dried paint or paint gluing the cap and container together! Caps can be used in the system or hand poured. The smaller opening in the middle creates less mess and is easier to pour than from the side. A cross-reference for the caps can be found in the instructions. Dispensers, connectors and tip caps make up the rest of the system.

The dispensers are similar to a medical quality syringe and allow you to remove the exact same amount of paint every time for custom color reproduction. The extractor eliminates the need to wait until the paint is dried to see if you have a match. The extractor has markings on the side, which allows you to measure by ml or by counting the marks on the extractor. The extractors come in several different sizes.

The connectors form a bridge that attaches two of the extractors and allows the liquid to be moved back and forth and be properly and thoroughly mixed.

The tip caps are used to seal the extractors for prolonged paint storage or a temporary seal. The tip caps fit all extractors and can be purchased separately.

The final component of the system is the Airbrush Cleaning kit. This includes one extractor and a cleaning attachment piece to insert into your airbrush. You simply fill the extractor with thinner and insert it into the airbrush paint opening. As you press the paint button, you compress the extractor. This flushes the liquid through your brush and cleans it without having to disassemble it.

Quite a bit of careful thought has gone into this system and we are already putting it to use here. We can say that the results are certainly "as advertised." The system is reasonably priced, too, with several different sized starter packs priced at only $29.98. The components are available individually or in packs for prices ranging from $1.60 to $13.50. A 20 pack of "I" type caps is $25.98.

You can purchase these products at select hobby shops in southern

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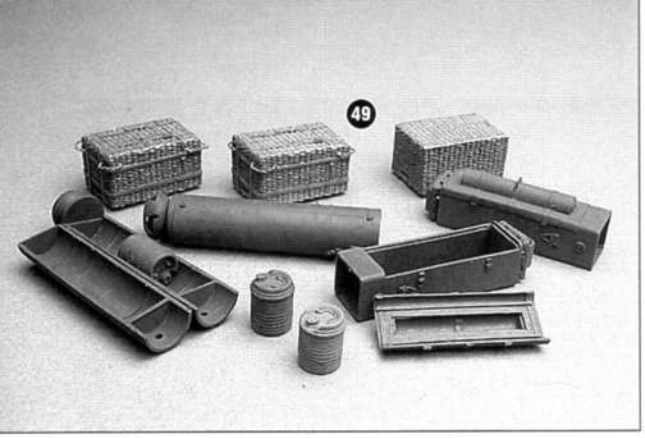
47



California (like Pegasus hobbies) or over the Precision Mix website. Their future plan is to have both hobby and art retailers carry their products throughout the United States and Canada.

For more information contact Precision Mix Systems at 308 E 12th Street, Beaumont, CA 92223 or www.precisionmixsystems.com

PSP

PSP has gone and released a full kit of the humongeous **Russian MAZ-573 Tank Transporter (48).** This is listed as kit SL357 and the listed retail price is a mere $200.00 or around $350.00. We've had a (brief) look at the kit and we can say that is of extremely high quality and the kit is actually two kits, one being the tractor and the other being the trailer. Comprehensive instructions are enclosed, as is a substantial sheet of photo-etched brass. It is said the kit will be limited to only 200 units.

PSP is sold in the U.S. through Mission Models (www.missionmodels.com).

Resicast

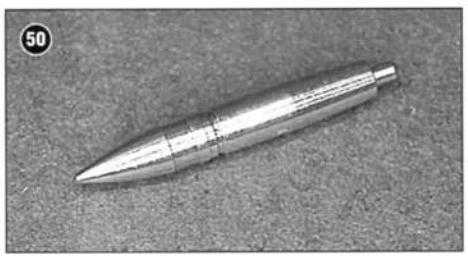
Another in a long running series of Airborne vehicles, figures and accessories is Resicast kit No **35.230, Airborne containers (49).** The kit provides three wicker baskets, three Mk I containers and three E type containers. One of each type can be displayed open and the two corrugated type fuel cans can fit into the containers. The baskets and containers are all resin and plans for assembly provide notes on painting and markings. Wire and string are required for handles. Super items for an airborne diorama or vehicle cargo.

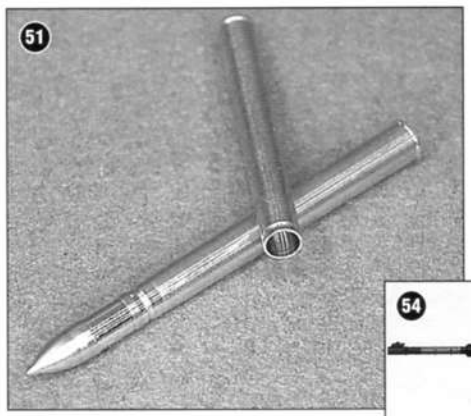
Tamiya

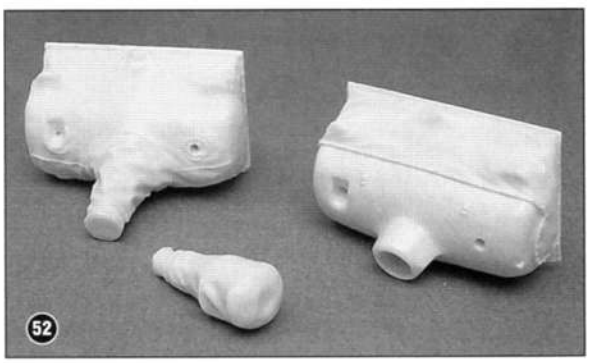
This is the Tamiya round up from Nuremberg and beyond. **35258 is Marder III M Brass 7.5cm Projectiles (50, 51).** We have this item here in our offices and it contains several different types of rounds, along with empty shell casings, all precisely turned in solid brass. Also included are several "shorty" rounds that are tapered on the bottom to slide into the empty ammo racks on the Tamiya Marder III M kit. Neato-mosquito.

Next up is **35260. Japan Ground Self Defense Force Type 90 Tank w/Ammo-Loading Set.** Back in 2000, Tamiya recreated part of the Type 90's automatic loading device and added figures to its Type 90 kit as a limited edition model, but has now added it as a full-fledged addition to the Military Miniature Series. You still get the auto-loader, dudes, shells and a bunch of ammo boxes.

Here's something interesting. **35262, German Pz.Kpfw. IV Ausf. J w/Eduard Photo Etched Parts for Zimmerit Coating** and **35261, German Panther Type G Early Version w/Eduard Photo Etched Parts for Zimmerit Coating** are the two newer kits with specially designed etched parts dropped in the box. Works for us!







The big new news this time is **35259 Krupp Protze 1 ton (6x4) Kfz.69 Towing Truck w/3.7cm Pak.** This will be an updated version of the older 6x4 Truck Krupp Protze paired with the 3.7cm Antitank Gun PAK 35/36. This fine old model will feature substantial new tooling on the rear bed and cab and will also include four brand new figures. This creates the version seen early in the war that was specifically designed to tow small artillery pieces. A welcome addition to the line.

For up to the minute scuttlebutt on the entire Tamiya product range, see the Tamiya website at www.tamiya.com

Trakz

Trakz, yet another sinuous arm of the VLS corporate conglomerate, brings you the following new goodies. **TX0022, T26E3/M26 Mantlet Covers and Muzzle Brake Set, $14.95 (52); TX0023, M-41 Walker Bulldog Accessory Set, $23.95 (53); TX0024, LVTA4, Sandbag Armor Set, $14.95; TX0025, DUKW Canvas Cargo Cover, $24.95; TX0026, LVTA4/A5 Markings Vinyl Stencil/Masks (Iwo Jima, Okinawa), $7.95** and **TX0027, LVT2 Markings Vinyl Stencil/Masks (Tarawa), $7.95.**

Comments, please! OK, check out the use of those vinyl masks in the LVT article later in this book. Also both the M26 and M41 items are "must haves."

Your direct connection to VLSville is www.modelmecca.com

Trumpeter

Trumpeter continues to chip away at its 5-year program with the release of **307, Chinese Type 89 Tank with 122mm Multi-Barrel Rocket System, $24.95** and **308, British Challenger II Main Battle Tank, $24.95 (54).**

Hobby shops: Trumpeter kits are available for dealer sale through Stevens International.

Verlinden Productions

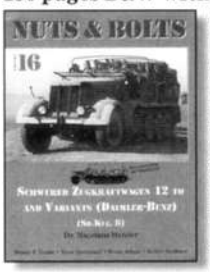
Although it comes fast and furious, here's what we could catch of the VP onslaught. **1856, M3 Halftrack Stowage Set, $15.95; 1859, European Country House, $27.95; 1865, Castle Remains (Ceramic), $28.95; 1869, LCM 3 US Navy Vehicle Landing Craft WWII, $124.95; 1874, Park Wall, $23.95; Park Gate, $23, 95; 1879, M26 Pershing Stowage Set, $14.95, 1880, City Residence (Ceramic/Resin), $39.95; 1881, M26 Engine & Detail Set, $29.95; 1886, The Corner Diorama Base, $39.95; 1887, Military Vehicle Stowage Cargo & Accessories 1/72, $TBA; 1888, M3 Grant Interior (Tamiya), TBA; 1890, Israeli Vehicle Stowage & Gear, TBA** and **1935, T55 A (M) Detail Set (Tamiya), TBA.**

We have a couple of the above products in our offices and we have this to say, WOWWEE! HUBBA-HUBBA! and HOLY SMOKES! OK, really some serious comments. That LCM is really something and will be the subject of a future review. We have never seen such huge pieces of resin so darned straight. Highly special. The Pershing engine set includes open fender stowage boxes, along with the engine and other gear. Also, the City Residence is worth a closer look as it contains a very clean and stable (read: clean and not dusty or soft) ceramic façade with resin detail parts. The VP stuff is still extremely PHAT (you know, Pretty, Hot And Tasty).

The line is constantly updated at www.verlinden-productions.com

Book Reviews

Nuts & Bolts Volume 16
Schwerer Zugkraftwagen 12 To. And Variants (Daimler-Benz) (Sd. Kfz. 8)
by Dr. Nicolaus Hettler
Soft Cover
136 pages B&W with color plates



HOLY KETTENKRAFTRAD Batman! If you like big German half tracks, get out the bag of confetti because it's time to party down! We'll grant you the title is impressive, but wait until you thumb through this book. Volume 16 has more pages and more photos than any other book in the series so far, and the text and captions are up to the usual high Nuts & Bolts standard. There are just over 180 black and white photographs of the Sd.Kfz. 8 itself, followed by 150 black and white close up pictures (everything from dash instruments to storage compartment interiors to the trailer coupling and steering rods). Then there's 12 pages of line drawings, seven real nice color prints, eight color photos of a Sd.Kfz. 8 model by Tony Greenland and a listing by variant and location of all known (12) surviving examples. The complete history of this impressive vehicle is, of course, thoroughly covered from prototype to post war use. Wherever the German armed forces went in WW2, so too went the Sd.Kfz. 8. It was one of the main workhorses whenever something big or heavy needed to be towed or hauled. The numerous wartime photos show the Sd.Kfz. 8 towing heavy artillery, cargo trailers, tanks on flat beds, searchlights and 88 mm guns. There are about 19 photos of a unique type of armor plated Sd.Kfz. 8 converted to carry an 88mm gun. The close up detail photos are all from restored museum vehicles, so each picture is nice and clear with accurate captions. Just about anything you would want to know about the Sd.Kfz. 8 is in this book. So do what you gotta do!

Japanese Armor Vol. 2
by Andrzej M. Tomczyk
AJ. Press
Soft cover
I20 pages B&W with color plates
ISBN 83-7237-111-3

THIS IS NUMBER 10 IN THE continuing TANKpower series and the quality more than matches the rest of the sequence. Covered in plentiful detail is the Japanese type 97 medium tank. This was one of the mainstays of the Japanese army all through WW2. This volume covers it from prototype to its post war use. 350 were given to the Chinese Communist government in 1949 by the Russians, who got them when the Japanese surrendered in 1945. Also, the Japanese Self-Defense Force used a small number for training purposes until the late 1960's. Information like this is always fascinating. There are more than 80 B&W pictures. Some of them also show Type 94 Chi-ro, Type 95 Ha-go and Type 94 and 97 tankettes. There are five maps, 14 line drawings in 1/35 scale and 10 pages of color plates of about 20 different Type 95s. Also, unit markings and camouflage colors are covered in detail. The text and captions are quite thorough and are in Polish and English. Aside from all the information on the Type 97, a good chunk of the book covers the history, tactics and employment of Japanese armor from the Manchurian border clashes in 1938-39 with the Russians. This continues to the conquest of much of South East Asia and the Philippines in the spring of 1942. You have to admit that's a lot of stuff in one very well executed book. This is a "must have" for anyone who is into WW2 Pacific armor.

4th New Zealand Armoured Brigade in Italy
by Jeffery Plowman and Malcolm Thomas
Kiwi Armour
Soft Cover
44 pages, B&W
ISBN 0-473-06534-7

THIS IS THE FIRST BOOK IN A trilogy on New Zealand armor units in WW2 by the same authors. They have certainly shed new light on a subject that has been, for the most part, in the shadows until now. Once again, they have packed a ton of information into a single slim publication. There are (ready for this?) 82 black and white photos, seven color prints, one four view line drawing of a Sherman in 1/35 scale, one map, a table of organization chart and the complete unit history. Also, notes on unit markings, camouflage patterns and crew applied vehicle names. The 4th New Zealand fought in Italy from October of 1943 until the end of the war. They fought at such places as Cassino, Rome, Florence and Trieste. The 75mm M4A2 Sherman and M10 tank destroyer were their mainstays, later supplemented with the 17-pounder firefly and Achilles. The New Zealand armor brigade had fewer tanks assigned to it than comparable British or American units. To offset this, the New Zealanders became very adept at acquiring "abandoned" Sherman's from other allied units. There are some interesting passages in the book about their encounters with German Tiger Is. There is also a fascinating account of a near point blank shoot out between the New Zealand Sherman's and Yugoslav crewed T34 tanks at Trieste right after the war! Good stuff, and great reading.

New Zealand Armour in the Pacific 1939-45
by Jeffery Plowman and Malcolm Thomas
Kiwi Armour
Soft cover
64 pages, B&W
ISBN 0-473-07503-2

THIS IS THE SECOND BOOK IN THIS series on New Zealand armor units during WW2. Once again the authors have done an outstanding job of research on this long overlooked subject. There are 94 B&W photos, seven color prints, two maps, five pages of table of organization charts and three pages of four view vehicle line drawings in 1/35 scale. Also, a complete account of the New Zealand armor units based "in country" during the war. There are some great pictures of M3 Stuart light tanks, big Federal tank transporters and the seldom seen British Valentine infantry tank. Formation symbols, camouflage colors and unit code numbers are covered in detail. The history section clearly tells the story of how this small country, with very little up to date equipment and a small population, managed to do a creditable job responding to the changing conditions and demands that the war placed upon it. When the war started, New Zealand was to train armor personal and form tank units to fight alongside the British forces in North West Europe. Then, with Japan's entry into the war, they had to switch to all out defense of their homeland. By late 1942, with the diminishing Japanese threat and increased American presence in the Pacific, they had to change priorities again. Now they began sending trained tank crews to North Africa and later, Italy, to join New Zealand armor groups fighting there. Again, this is a good one for anyone interested in WW2 Pacific armor.

Achtung Panzer No. 7
Pz.Kpfw. I/Pz.Kpfw. II series and variants
by Mitsuru Bitoh
Dai Nippon Kaiga Co.
Soft cover
144 pages, B&W plus color photos
ISBN4-499-22773-9
$36.95

WE DON'T KNOW HOW familiar you might be with this series, but it is as remarkable as the title is long. Volume number 7 is packed with a massive amount of information. It starts with 32 black and white wartime photos chosen for their clarity and interest. Toward the back of the book there are a solid 21 full pages of close-up color museum photos of Pz. I Ausf. A's, Pz II Auf. C and F, Marder II 7.5cm and a Wespe 10.5cm. The bi-lingual text and captions accompanying the photos and illustrations are quite accurate and informative. This is obviously a thoroughly researched book done with modelers in mind.
But the thing that wowed us in the isles was the 96 pages containing hundreds of three-dimensional line drawings! Now, you have to understand we are not just talking about three or four view drawings of the exterior of the vehicles. What impresses us in a huge way are the highly detailed drawings of the interiors and component parts of each of the different vehicles and their variants.

For example, take the Sd.Kfz.124 Wespe. There are 14 pages with really detailed drawings of stuff and that is just a small sample of the amount of drawings lavished on each type in the book.

You really would not need another reference other than this one to build a highly detailed and accurate Pz. I, Pz. II or their variants. Everything you would want or need to know is here. So, you better put down this magazine and find the checkbook right now, because this little gem won't be around forever.

The publishers, with the exception of the Achtung Panzer title, provided all the review samples for this feature. This title was submitted by Hobbylink Japan.

Operation Citadel

The latest über title from the mad men at Fedorowicz Publishing has got the goods

We are pleased to give you a brief peek of the new Fedorowicz title Operation "Citadel," A text and Photo Album, Volume I: The South by J. Restayn and N. Moller. The team has done a terrific job in routing out rare photos and also correctly placing them in the proper historical context. The photo collection is among the most interesting we have seen on the subject and it also includes many Russian photos as well. The publication is available now at finer bookstores and mail order outlets. Above: Panther 121 of the I./Panzer-Abteilung 51 displays the unit insignia on the turret rear, as well as somewhat larger numerals. (BA) Below: A Hummel of the Panzer-Grenadier Division Großdeutschland moves out to a new firing position on the evening of July 5th, 1943. (BA)

Above: Wespe and Hummel self-propelled artillery—the latter from the Panzer-Grenadier Division Großdeutschland—prepare to give supporting fire to the tanks of the 11.Panzer Division. (BA) Below: A Sd.Kfz. 251 of the 3./Panzer-Grenadier-RegimentGroßdeutschland crosses a bridge prepared for demolition. Evidence of this can be seen in the 1,000-kilogram bomb in the foreground. (ECPA)

Panzer IV's of the III./Panzer Regiment 15 of the 11.Panzer-Division. Of interest are the sharp-edged vehicle identification numerals. Note the unusual mounting of the jerry can on the back of 933, as well as the divisional insignia next to it. (BA) Inset: These SS tankers appear to be observing the action as opposed to participating in it. Perhaps they are observing an artillery preparation prior to moving out. Since several are holding their ears, it would appear that larger caliber weapons are firing nearby. (Hoffman)

Above: An assault gun of the SS-Sturmgeschutz-Abeiltung 3 "Totenkopf" demonstrates a divisional insignia in white. The armored vehicles of the SS-Panzer-Regiment 3 "Totenkopf," on the other hand, were painted in either black or white. (BA) Below: A destroyed T-34 in the sector of the Panzer-Grenadier Division Großdeutschland. It has a very light camouflage scheme, probably consisting of sand yellow over a base coat of green. The vehicle's numerals were most likely rendered in red. Note also that the turret roof has been blown off the tank. (BA)

"Dana" The Big Gun On Wheels

Building the PanzerShop Dana 152mm Self-Propelled Gun

This rather unusual self-propelled gun was developed by ZTS for the Czechoslovakian Army back in the late 1970s. The Czechoslovakian Army had issued a requirement for a highly mobile, self-propelled artillery system. I don't know if they actually specified a wheeled vehicle versus tracked, but that's what they got. Although a wheeled vehicle has some limitations compared to a tracked one, there also are some advantages to mounting a gun on a truck chassis. This is especially true when the truck chassis in question is the Tatra 815 8x8, which is well known for its cross-country capability. Some of these advantages include higher movement speed, lower maintenance and costs when compared to tracks and, best of all, they are cheaper to produce.

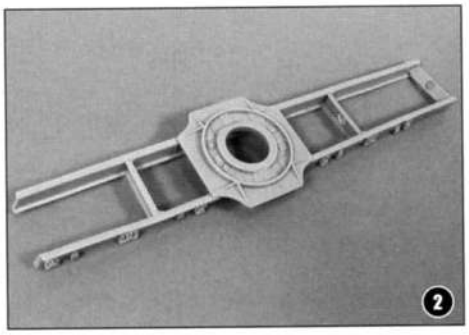
Once ZTS had completed the prototype and trials had been successfully conducted, the Czechoslovakian Army accepted it for production. The official Czechoslovakian Army designator for this system was "vzor 77 Self-Propelled Howitzer Dana." The first production models went to the Kiev Artillery Battalion Jan Zizka of Trocnov based at Tabor in southern Bohemia in 1981.

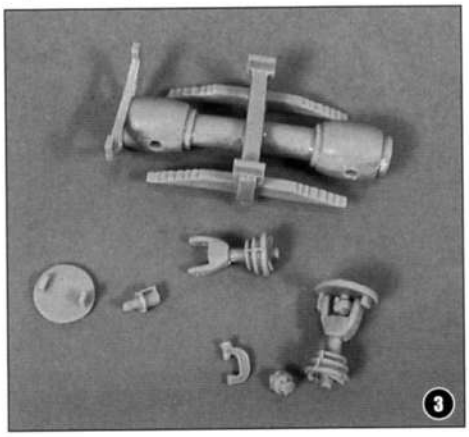
Production ended apparently around 1994 with over 750 units being constructed. Currently, there are further developments of this chassis with a different gun configuration being carried out by ZTS Dubnica nad Váhom of the Slovak Republic. There are at least four major variants, including the 152mm ShkH Ondava, the NATO 155mm Zuzana, Tatrapan ACV and the twin 30mm Strop self-propelled Antiaircraft gun. There is even a version of the 155mm Zuzana turret on the T-72M1 tank chassis used by the Czech Army and, perhaps, the Indian Army.

As mentioned, the Dana is based on a heavily modified Tatra 815 8x8 Kolos truck chassis. The extremely large turret with the 152mm howitzer is mounted centrally for balance. The truck also has a fully armored body and a rear-mounted engine. The turret traverse is limited to a total of 225 degrees due to cabling. The cab has roof hatches for the driver and commander and is armored like the rest of the truck. The turret is divided into two compartments, one on each side of the gun. Both have an access hatch on the sides and a roof hatch. The right compartment mounts the 12.7mm DSHK – Dushka machinegun for local and air defense. The normal ammunition load is 40 152mm rounds. It is possible to carry up to 60 rounds in an emergency, but this cuts down on the range and speed of the vehicle. The gun has a maximum range of 20 kilometers. The Dana can start firing within two minutes of halting and move one minute after firing the last round. Its automatic loading system can fire 30 rounds in 30 minutes or 90 rounds in an hour, making it a pretty potent weapon. Countries using the Dana include the Czech Republic, Slovakia, Poland, Libya and Russia.

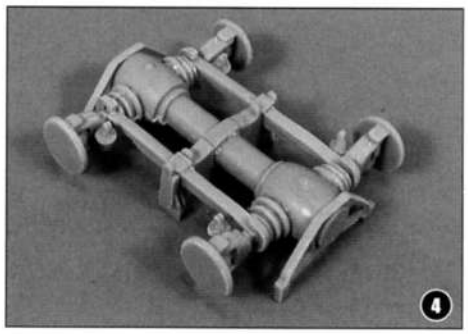
Where's the kitchen sink?

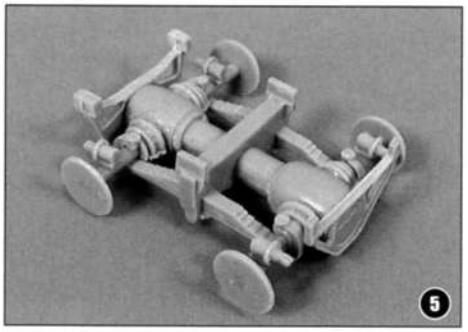
This is a new kit from the shop of Libor Matejka, the owner and operator of PanzerShop. PanzerShop is located in the Czech Republic. Libor has, for a couple of years now, been producing a number of accessories and full kits in several areas of interest and as he releases new kits they get better and better. I will start out by saying this is an absolutely awesome kit. It consists of 250 resin parts, 311 photo-etch parts, a turned aluminum barrel, decals for five different countries, a Modelpoint antenna base, a Friulmodellismo 12.7mm DSHK—Dushka machinegun and various bits and pieces of metal, wire, chain and possibly hidden somewhere in the kit, a kitchen sink. Not stopping there, he also includes a CD-ROM with complete photos of all the steps, 39 additional photos of the model under construction and completed, and 83 photos of the real thing. Additionally, there is a very complete set of 12 double-sided legal size instructions. I can't think of a thing he has left out. The quality of the castings is beautiful. There is almost no clean up since Libor doesn't normally use casting plugs. He casts the smaller pieces in wafers, which allows the parts to be removed easily. If all this sounds too good to be true, there is a catch. Libor advertises this as a kit for advanced modelers and he is correct. Do not even consider this kit, unless you are an experienced resin modeler who is comfortable with a lot of photo-etch parts.

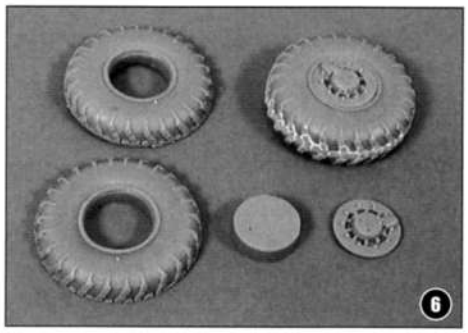


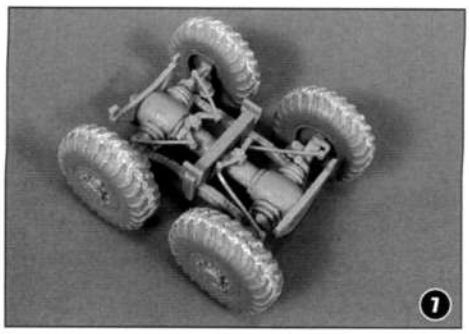


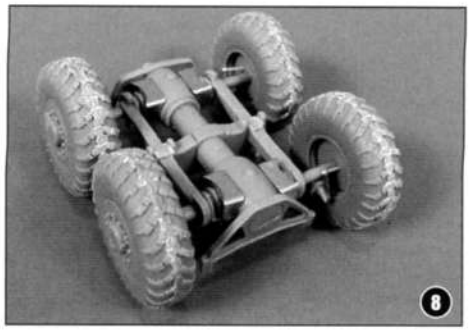
1. The kit includes everything needed to build this model, including reference material on the CD ROM. 2. The frame was the first thing to assemble. There was some warping in the spars but a little boiling water took care of that. There are guide marks to help place the main platform. 3. Assembling all the parts for the front axle assembly was easy once I found them all.

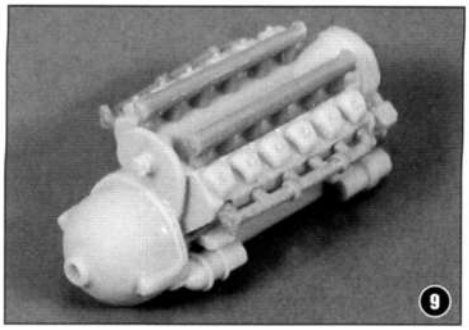


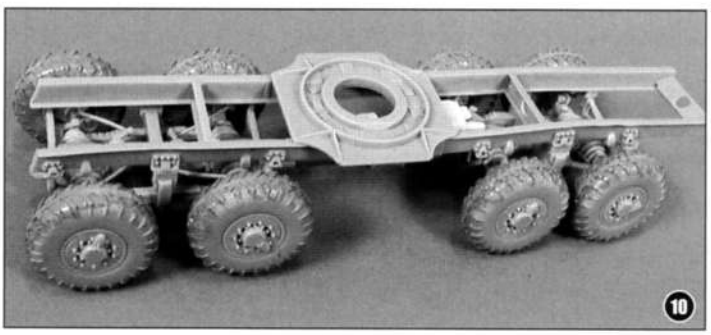


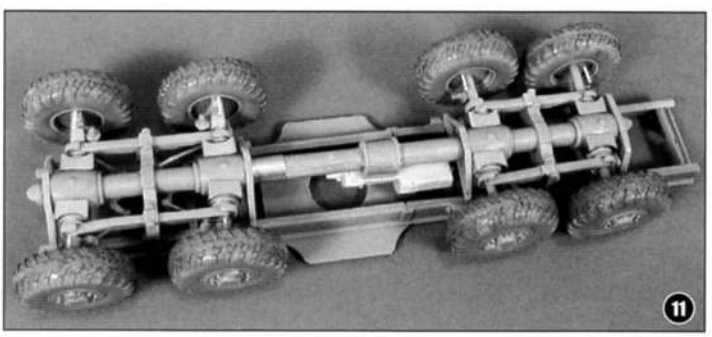












4. The partially built front axle assembly looking from the bottom. 5. The rear axle assembly is a little less complicated to build. Here you are looking at the top. 6. The tires come in identical halves, except for some small locating pins. 7. The front axle assembly only, minus the photo-etch parts, looking down from the top. Notice the tread direction. 8. The rear axle assembly with the photo-etch parts added. The small brake levers were a little difficult to figure out. 9. The engine is the only piece that had a serious pour plug to remove. The engine is fairly simple, but the casting detail is good. 10. The axles have been glued onto the frame. Unfortunately, the attachment points do not line up too well. 11. Here you can see the offset of the axles. I thought this was supposed to be there.

Warning: For advance modelers only, ID's will be checked

This is definitely not a Tamiya kit that you add some glue and shake the box. One thing I noticed from the last time I reviewed one of Libor's kits (the MT-55A in MMiR issue # 21) is he now includes suggested steps, which really helps on a complicated kit. Be sure to check the CD because not all the steps are printed out. I had some trouble with the printed construction photos until I went back to my computer and brought them up in Photo Shop, allowing me to both enlarge and enhance them. Also, I found using the photos of the parts sheets on the CD makes identifying them easier than using the printed copy.

Starting with step one, I built the frame, which unfortunately included some warped pieces. All four frame pieces were a little warped but easy to correct. I just dumped them into boiling water for a few seconds, then laid them out on a flat surface and they were straight. You do have to drill a 6.5mm hole in R38, which is clearly labeled, and cut off the ends of two of the main spars. I was not sure where to mount the main mount disk, R1, until I saw some marks on the inside of the frame.

What do I do with all these axles?

The front axle assembly was next and it took some time to find all the parts. There are four suggestions of holes on the sides of parts R61 and R63, which you need to drill out for the axles. Be careful, my holes were not aligned and I guess the axles were supposed to be offset. I had no way of checking if they were really supposed to be offset, but I noticed Libor's model wheels are. A word of advice is be sure the front axles are at least 6 mm from the front of piece R63. I had trouble later because the right front wheel was too close to the cab. The instructions also mention angle "X" a number of times and I had difficulty figuring out what it was. The answer is that you need to mount the axles at a slight down angle on the main housing. This is true with both the front and rear axle assemblies. Otherwise, the tires are too high and will hit the bed. The four wheel disks, R24, are not quite the same as shown in the photos so be careful. Once finished with the front axles I went to the rear ones and assembled them without any difficulty.

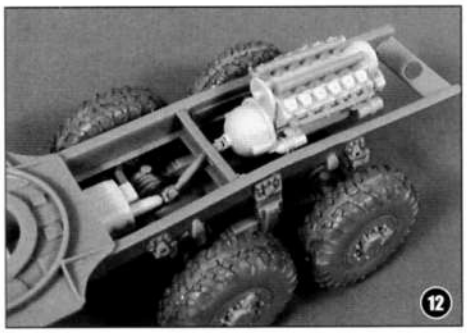
The tires are in halves, so they had to be glued together, then sanded to remove the seam. I then glued them on the axles. A real neat feature of this kit is the way the tires are constructed. You can mount them so all the tread is pointing the same direction. Nice Touch. There are a few photo-etch parts that go on the bottom of the axles and the brake levers, which are added last.

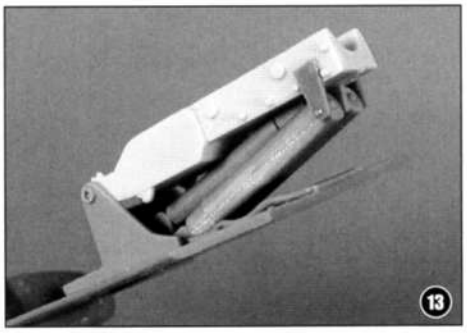
The front and rear axles assemblies were then glued onto the frame. Be careful and check your references often because it is really easy to get the front and rear axles confused. I then glued the connecting drive shaft, which unfortunately was a little short. I don't know if I did something wrong or not. Anyway, I discovered a quick solution by taking a piece of thin sheet metal and wrapping it around one end of the drive shaft for an extension.

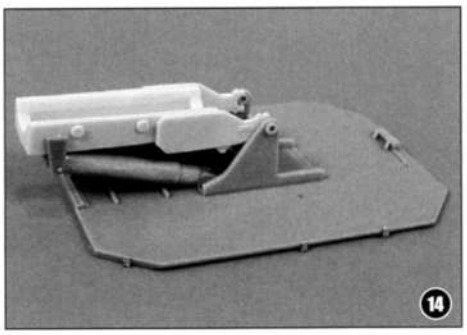
The engine was next. This is one of the few pieces that had a plug to cut off. Once that was done I assembled the engine and glued it on the frame. I wanted to detail it before I mounted it but the instructions show this being done later and, frankly, I did not want to jump that far ahead.

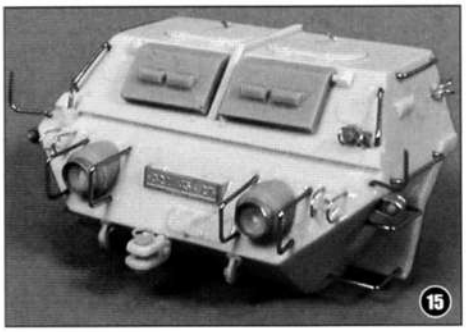
One big turret

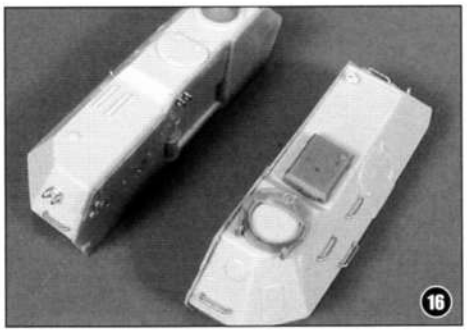
I then started on the firing platform. I assembled the base and all the mounts. I then built up the cradle and cylinders. You get a choice of having the gun elevated or in the travel position. I decided to make mine in the travel, which means the gun is basically horizontal. There are three cylinders underneath the cradle. The center one, R108, receives a sliding arm that goes in it. If it is in the travel position, then you can glue the headpiece, R72, onto it without bothering with the aluminum bar. I hollowed mine out and glued the head on the

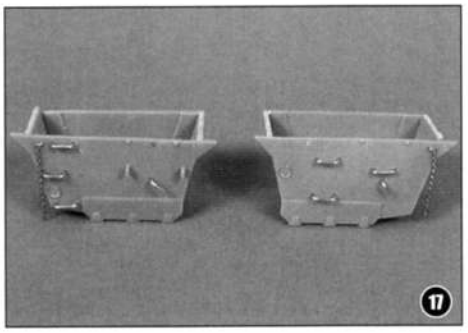


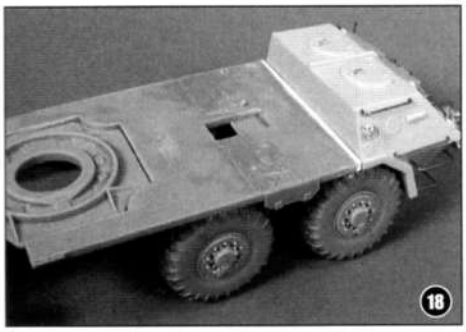


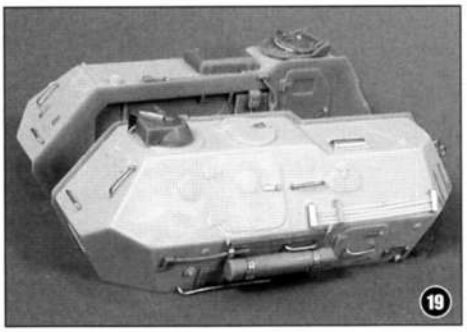


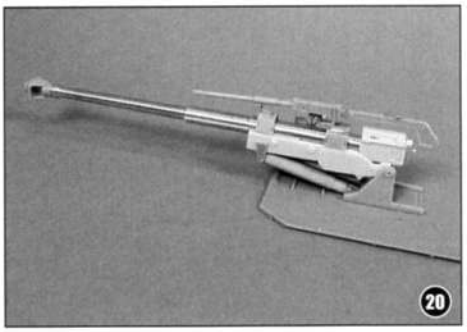












12. The engine was initially installed too high and it was not until I got the rear deck on that I could even tell. 13. The gun carriage mounted in the travel position. 14. Here is another view of the basic gun carriage before the gun tube assembly was added. 15. The forward cab ready for mounting. 16. The basic turret halves with the inside pieces installed. 17. The side tanks after assembly. You can see they are not well constructed. 18. Since the right front tire was mounted too far forward, I had to add a strip of styrene. 19. All the final details have been added to the turret halves. I left off one of the aiming stakes because it was going to get "candy striped" later. 20. The gun barrel and assembly was now completed for the travel position. There are a lot of neat photo-etch parts that go on it, as can be seen.

bar before positioning it and found it was totally compressed. If you are going to have the gun elevated, then you do need to add the bar. Another nice touch, you get two sets of cylinders. One set for the raised position and one for the lowered. The breach was glued to the barrel and detailed using the photo-etch parts and by gluing the muzzle brake on.

The forward cab was cleaned up and all the holes for the rails were drilled out. Then the rails were constructed and glued on. For the lighter rails, the kit includes a fine wire, but I substituted brass wire. The wire, X-1, is very stiff but works okay. There are a series of orange lights on the side and front of the cab and later on, the turret. For all of these, I cut them off and drilled holes to accept ROCO emergency lights. For the main headlights, I wanted to use MV lenses, so I drilled out the headlights. You also get a Model Point antenna base, which requires cutting the bottom off before mounting it.

The two side housings called "tanks," need to be built next. The pieces do not fit too well and have to be trimmed. The important part here is to be sure everything is level with the outside piece. This will be flush mounted later, but only the outside pieces, R87 and 88, really show. By this time, I had run out of the wire supplied in the kit and went to brass wire for the handles. Actually, I wished I had done that earlier because the supplied wire is very stiff and hard to work with.

The next item was the first step of constructing the turret. The outside of both halves is a large casting with some cleanup needed for the front. There are sidepieces that go on each, which I also cleaned up. To get them to fit into the outer halves, I used a Dremel tool to grind down the inside a little. Note that there is supposed to be a raised ridge running around the top and sides, so don't trim them back to fit the outer piece. The handles were then made and glued on. The turret ring mount, R18, has the words "ring cut" labeled. Now, I am always hesitant to cut off something that looks like it belongs, but I finally determined he really does mean "cut off the ring," which I did.

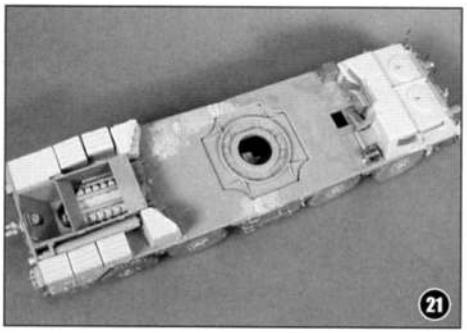
Putting it all together

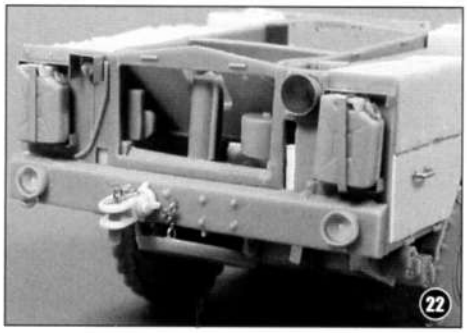
Now that all the major components were ready, it was time to start assembling the big guy. I first test fitted the front deck, R100, with no problems until I tried the cab. I was short a little because, as I mentioned earlier, the right front tire was too far forward. To solve this problem I added a strip of styrene to the front. I then glued the deck on, the cab and the rear deck, R151. Lastly, the two side tanks were then glued on. I then went back and, using putty, filled in a lot of holes and gaps.

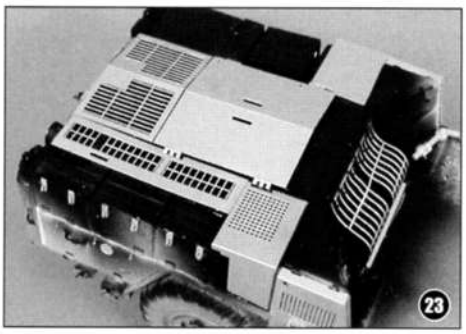
At this point I also realized the engine was mounted too high. I had to remove it and mount it much lower. I then added the forward manifold and piping from the electrical wire that was furnished in the kit. I decided that I was not wild about the wiring the instructions showed. Since I did not have any references, I just left the rest of the wiring off. I did not plan to have the engine bay open, anyway.

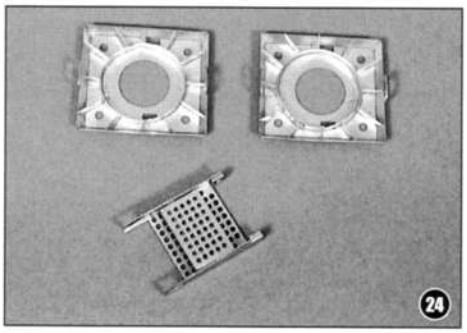
The front cab received my attention next. I added all the photo-etch and resin parts behind the cab, including the cab extension. I then moved to the rear and started detailing all the boxes, exhaust and cylinders located underneath the rear deck. You really need to carefully check the photos because it is very easy to miss parts. I sprayed the inside of the engine compartment with Tamiya XF-1 flat black paint before adding the photo-etch top parts. The fit on many of these parts was not great, but considering the complexity of this area, it is not surprising. The worst part was the rear engine grill. Wow! This little monster consists of approximately 18 parts. I formed the main grill piece and soldered it. I then assembled the two sections of slats using superglue. These were then soldered onto the grill, P111.

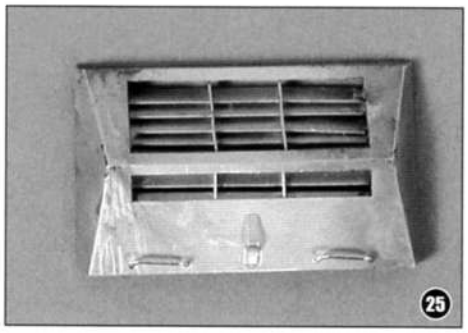
I then returned to the gun and turret. I first added the extra photo-etch details on the two turret halves. The gun was next. I glued the gun to the mount and proceeded to detail it. Again, watch your

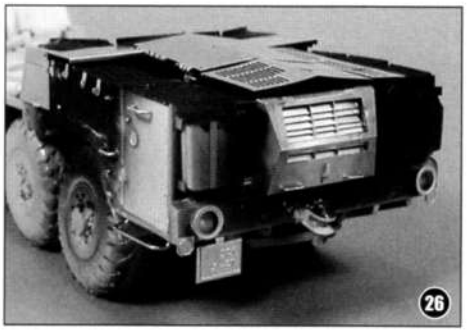












references closely since this is one complicated area of the model. I found the suggested sequence of assembly is worth following here. The conveyor belt for the gun is assembled separately, then the right turret half is glued to the base. I then glued the conveyor belt assembly on since this is the only way to correctly mount part R48, which goes on the rear of the turret. The left side of the turret was then glued on.

The Friulmodellismo Dushka machinegun was then assembled following their instructions. This was not a bad kit, but it can become very fiddly. There are also special photo-etch parts for the base and an ammunition feed tray that are supplied with the PanzerShop kit.

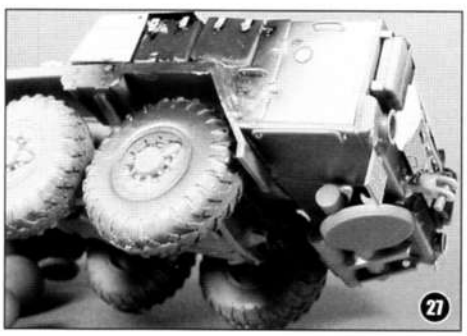
I then tackled the two jack plates, which I had been dreading since I first saw the instructions. Again, like the grill, there are a lot of pieces. But with a lot of patience and superglue, I got them both together. There is a retractable step assembly that goes on the right side. Luckily for me, I planned to have it retracted since I never could figure out how it was supposed to go together. In other words, I faked it. Since I wanted my gun in the travel position, I constructed the three stabilizing jacks in the retracted position.

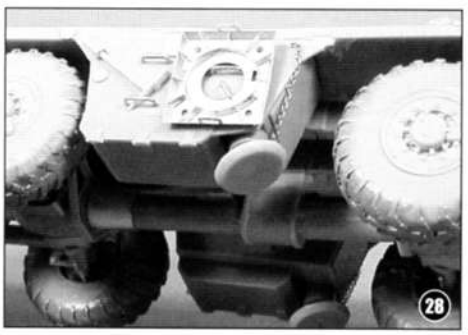
The last stage of construction was putting on some tiny hooks, P69, that go around the sides. These are very delicate, so I knew if I put them on earlier they would be gone. Fortunately, there are a number of extra pieces on the fret so if you lose some, don't worry. I also added the latches on the rear boxes. I made the tow cable out of the provided resin pieces and Karaya copper tow cable.

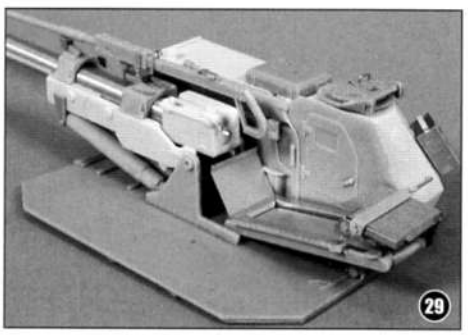
Let's paint

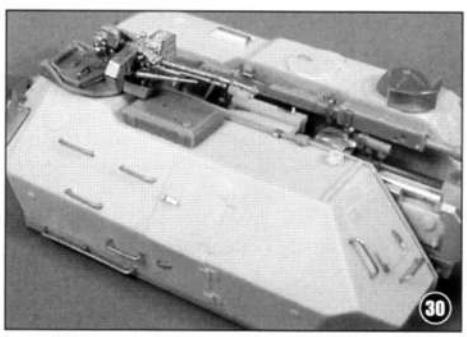
I thought "now for the easy part, painting," since I was not going to try and camouflage it. Wrong again. I first washed everything, then sprayed the whole vehicle with Tamiya XF-1 flat black as a base coat. After taping up the tires, I lightly sprayed with Tamiya XF-58 olive green, which seems to be close to the color that the Czech Republic vehicles are painted. The wheels were then painted using a mask. So far, so good. The problem I ran into now was just the sheer complexity of the vehicle. There were a lot of small items to be painted by hand and the weight of the model, plus all the small parts, made it very difficult to handle without breaking something. I sprayed the areas to be decaled with clear gloss. I then added all the little decals, which include tire pressure numbers and a series of G and H numbers for different panels. I have no idea what they are for, but they look cool. I then sprayed the whole vehicle in a Polly Scale satin finish to seal the decals and give it a slight sheen.

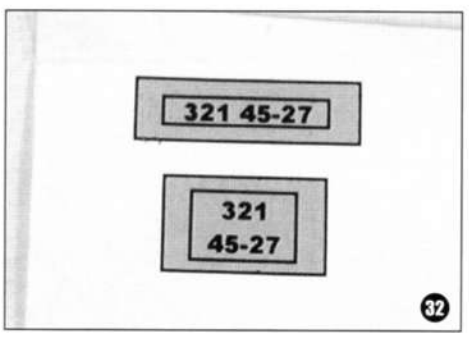
One thing I did learn while working on this model is that Czech military vehicles use mirrored roundels. Most decals you see of Czech roundels are facing the same way. This applies to Tamiya, DML and others. I did not know this until Libor corrected my finished model by pointing out the blue always faces the front of the vehicle and the



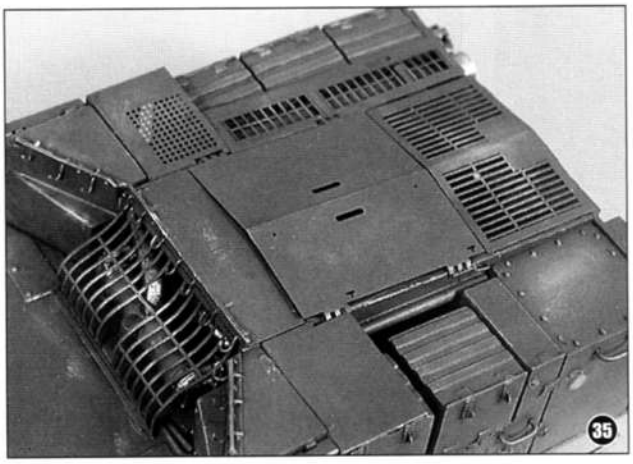


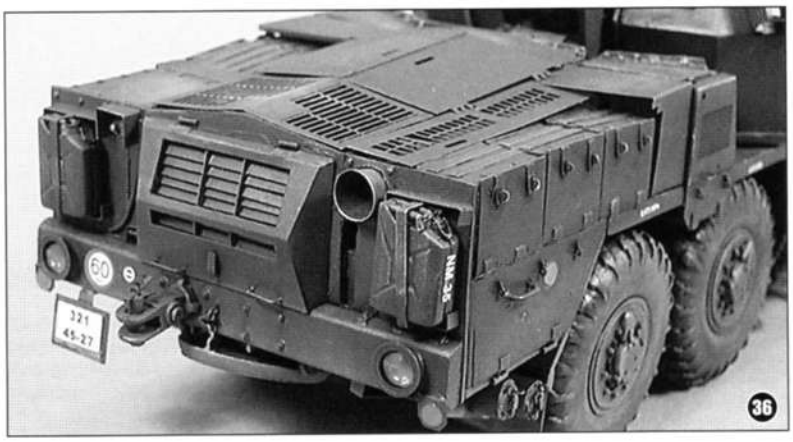


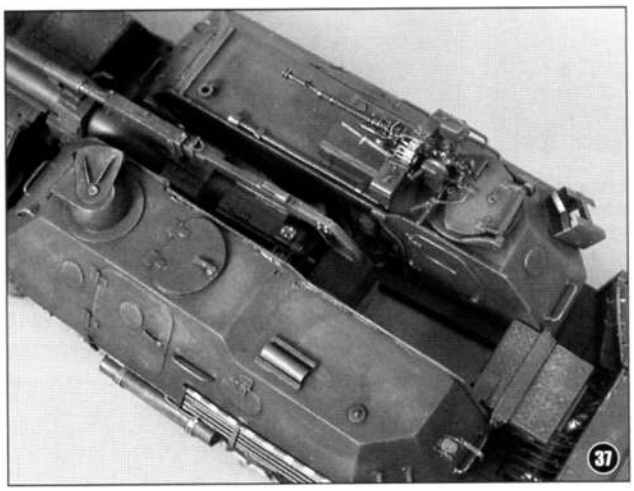




21. A bird's eye view of the whole vehicle before the engine was covered. The good new is, the mess in the center will be covered by the turret. 22. Some of the details on the rear. The taillights were drilled out for MV lenses later. 23. The photo-etch on the rear deck took some work to get on. The fit was not great, but considering the complexity of the construction, this is not surprising. 24. The base plates and extending platform were very challenging and consisted of a lot of parts, still they only took a few hours to construct. 25. The hardest part of the kit was assembling the rear grill. I used a combination of soldering and superglue to get it together. 26. The rear grill can be left open or closed. I chose to close it since I was not interested in showing off the engine. 27. The rear base plate can either be lowered or raised. I chose to have it raised. There are also two cylinders underneath the base plate. 28. The other two base plates can be seen here, also in the raised position. The chain that runs down is attached to the base plate itself. 29. The right side of the turret has to be glued on the base before attaching the conveyor belt. 30. The completed turret with the 12.7mm machinegun mounted. Wouldn't this be cool on a T-72 tank chassis? 31. The Friulmodellismo 12.7mm DSHK – Dushka machinegun, plus some photo-etch parts. This was not a bad gun, but some of the parts were a little difficult to get together. 32. The whole ball of wax before painting. By this time it had reached paperweight or maybe even doorstop status. 33. The license plates were printed using glossy CD-ROM labels. The advantage to using this material was the quality is very good, it does not smear and it sticks well. Best of all I had some available. 34. The vehicle was painted with olive green acrylic paint and lightly weathered. 35. The front grill for the engine was removed to allow painting the engine parts and, after weathering, was glued back on. 36. The taillights are red MV lens #174. You also can see the rear engine grill does not look too bad when painted. 37. A bird's eye view of the turret showing some of the detail in the interior. 38. It seems that only one survey rod is painted with candy stripes, while the others are green. You can see the tow cable running along the base of the turret.







white is always on top.

I did not want to weather the vehicle much, so I gave it a wash of very thin black oil paint and then lightly dry brushed it with a number of oils. The lower part of the chassis was sprayed with a thinned dirt color. Libor supplies etched license plates, but they are supposed to be yellow with raised painted letters. I have never had much luck at hand painting numbers, so I made my own using an inkjet printer and printed the plates out on a glossy CDROM label.

I then went around and added all the orange ROCO emergency lights. I glued clear MV lenses #185 in the headlights and MV #174 red in the taillights. The reflectors were painted orange and red and the antenna wire, made from piano wire, was glued on.

In summation

This is not a kit for the novice, for sure, but it is very buildable and the new suggested steps greatly increase the ease of building. I actually built and painted the whole thing is less than two weeks. This surprised me, since I normally need to put more time into a complex kit like this. I was really impressed with the way Libor designed this kit. The high quality of the photo-etch and resin parts is also outstanding. These parts are certainly much better than some of the kits from the better known after-market manufacturers. Congratulations to PanzerShop on an outstanding kit!

—Jim Hensley

MMiR RECCE

PanzerShop 152mm ShKH vz.77 "Dana." Kit graciously provided by Chesapeake Model Designs. Suggested Retail $199.00.

References

Foss, Christopher. *Jane's Armour and Artillery 1996-97*, Surrey UK, 1997.

Live! It's a real T-55!

Building the long awaited Tamiya T-55A kit

Okay, here it is. When I first got back into armor modeling about seven years ago, the first area I wanted to concentrate on was Russian/Soviet equipment. The main reason was that I had spent the previous 24 years in the Army looking at Soviet equipment in one form or the other. One of the first tanks I wanted to build, of course, was the T-55. I had built the Tamiya T-54 when I was stationed in Germany back in the early 70s but it was a dog of a kit. You couldn't even get it, since it had been out of production for so long. I therefore had to kit-bash the ESCI and Lindberg kits, plus add a zillion after market items trying to get one half-decent T-55. After a lot of false starts with SKIF, Trumpeter and dare I even mention Lee, we finally have, in my humble option, an honest to goodness great T-55 right out of the box.

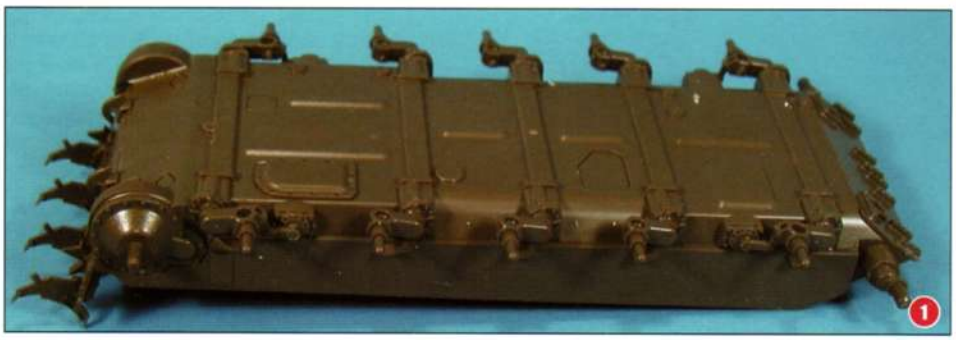
The T-55 is the last of a long chain, which can trace its lineage as far back as the T-34 of World War II fame. The successor to the T-34 was the T-44, which was the last medium tank produced by the Soviets at the end of World War II. It was replaced with the T-54, then the T-55. The T-55 is unique in that it continued to be produced after the production of its replacement, the T-62, had ceased.

The search for a replacement for the T-54 began at the end of 1953 with the code name "Obiekt 140." However, this project was canceled in favor of another alternative, the Obiekt 155, which entered production in 1958 as the T-55. The T-55 was basically an improved T-54B. Many of the internal details were changed from the T-54, but it is difficult to tell the types apart externally, except for the lack of the large ventilator dome on the turret of the T-55.

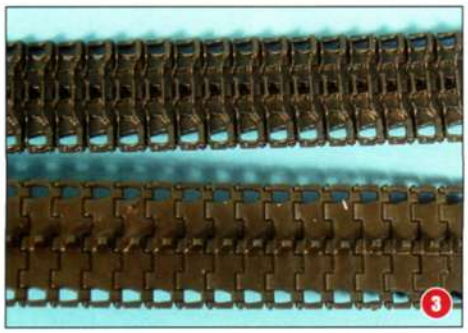
The first production model of the T-55 was the Model 1958. Oddly enough, the 12.7mm DShK anti-aircraft machine gun that the T-54B carried was not included. Later, around 1970, it was decided to retrofit the T-55 and T-55A with the 12.7mm DShK again because of the increased NATO helicopter threat. NATO referred to the T-55 that received this machine gun as the T-55M, but not the Soviets. They still kept the T-55 designator. The Soviet T-55M was the version that received the brow armor on the turret and other passive armor appliqué improvements in 1983.

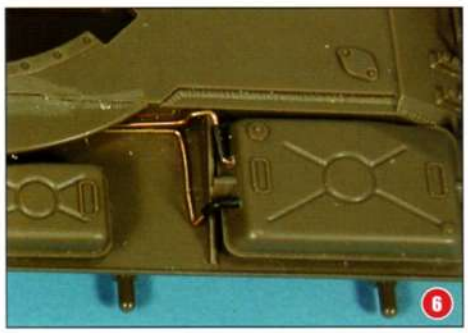
The T-55A was an improved T-55 that included a full PAZ/FVU chemical filtration system and new anti-radiation lining. Development and production began in the 1960's. The most noticeable external difference was the addition of new anti-radiation combing around the two turret hatches and extra padding on the driver's hatch. All these new features are included as options in the Tamiya kit. As mentioned, the T-55A originally was not issued with a 12.7mm DShK machine gun.

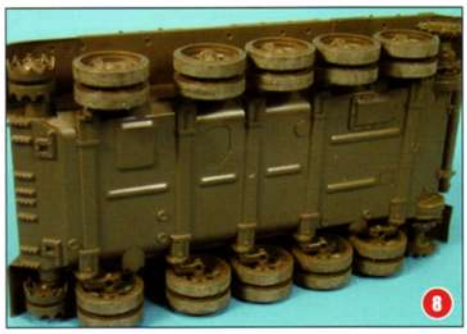
The Poles and Czechs both produced licensed



1. The axles required a little care because they have a lot of play in them. I used the first and last axles as a guide, since they have an extra support piece to permit better alignment. 2. The roadwheels are great. The only flaw I found was that the mold lines between the rubber pads should be raised and not be recessed.







3. The tracks are well detailed for rubber bands and they only have a few little "nibbies" to remove. 4. The hull top and bottom fit like a glove. I only had to run a little liquid cement around the edge. 5. The mounts for a dozer blade are included. The headlight cage did not need any work, but I did hollow out the main light to accept a MV lens. 6. I just could not leave off the tubing that connects the three fuel cells. I used brass wire and hollow rubber tubing to make the tubes. 7. The hull is ready for painting. I glued the tow hook ends on the right fender, but left the cables and other ends off until after painting. 8. Notice something missing? No Tamiya logo! The bottom is as detailed as the rest of the kit. 9. I glued the fuel tanks and snorkel on the rear, but left the unditching log off until after painting. 10. Two important details here are the marker lights and the safety latches for the tow hooks. Both are very well done. 11. The basic turret before the detail was added. The surface texture is great and looks just right to me.

copies of the T-55 and T-55A, plus further versions. Externally these tanks were identical to the Soviet version with the small exception of the fan cover on the rear deck. Total Soviet production of the T-55 was about 27,500, plus 10,000 from Poland and Czechoslovakia.

The kit

This kit is really a dream come true. The kit consists of five sprues in dark olive green for a total of approximately 275 parts. There are also the usual poly caps, string for cables, mesh for screens and, of course, the glueable rubber band tracks. The instructions are the normal high quality and contain the clarity that Tamiya is famous for. As a matter of fact, they have actually outdone themselves and included diagrams of sprue material that is to be removed from individual parts. The decal sheet, plus a few extra parts, allows you to build five different models including two Soviet, one with an early T-55A before the 12.7mm DShK was mounted, another T-55 with the 12.7mm DShK, two Polish and one Czech Republic version. Unfortunately, the Polish and Czech versions cannot be built out of the box. While Tamiya includes the turret side boxes and other items for these versions, they did not include the altered rear deck. The change involves the right rear vent cover, which is over the engine fan. Both the Polish and Czech produced T-55's had this change. You could build the Soviet T-55A with the 12.7mm DShK, using the correct raised loader's hatch that is intended for the Polish T-55A. I only used two after market pieces, a newly released turned aluminum barrel from Chesapeake Model Design and a Model Point brass antenna pod.

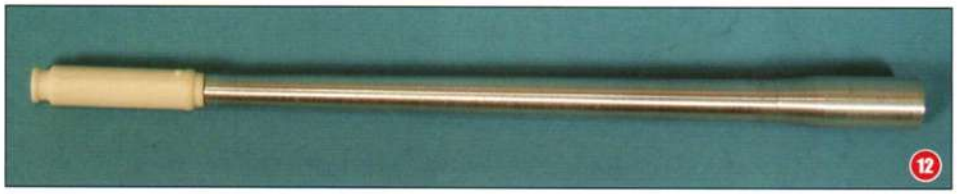
Don't keep me in suspension

I wanted to build this kit out of the box as much as my conscience would allow. I did deviate in a few places, but not too many. I started with assembling all the drive sprockets, roadwheels and idlers. For the nitpickers, there is one minor error on the roadwheels. The good news is that the seams that are between each rubber pad are rendered. These are actually mold lines, since the rubber is molded onto the steel roadwheels. The bad news is that they are recessed, instead of being raised like the kit's. Like I said, this does not bother me, but I know some will fuss about it. On the other hand, this is the first T-55 kit produced that has the correct roadwheels. In the past, we have had to go to the after market crowd for a set of decent replacements. The usual poly caps are also used, which I personally like, since it allows the roadwheels to be easily removed for painting.

The suspension arms are the next major item to attack. The arms have flat places on them to keep you from putting them in upside down, but there is a lot of play in them. The front and rear arms also have an extra support piece, A-36 and A-40, which allows them to be lined up correctly. I made sure the other axles were lined up using a straight edge, which the instructions also suggest. The front and rear hull bottom pieces were then glued on with a few small bits added. The detail on this kit is really extraordinary and a good example is the small locks that go above the tow hooks. Usually these are not included at all and if they are, then they are very rudimentary. These little guys are really beautiful. It is not normal for me to build a kit and "ooh" and "ah," but I did with this one.

Hulling along

The next step was to glue on the four supports for the rear fuel tanks. Be sure to get these all down where they belong. I had one slide up a little and it caused a small problem when installing the hull top, until I realized what was causing the problem. By the way, these supports are beautifully detailed. After checking for fit, I glued the rubber band tracks together. There are some small "nibbies" that



12. The Chesapeake Model Design turned aluminum barrel is designed for this kit. The fume extractor is resin and cast right onto the barrel. 13. It took a little doing to get the barrel mounted. I had to replace the collar in the mantlet with a hollow styrene tube. The aluminum barrel should have been stepped on the rear to help make it

easier to mount. 14. The barrel assembly glued to the turret. There are two side pieces and a ring around the barrel end that connects to the searchlight. 15 I did add the Model Point antenna pod. I buy these things by the bag. Also notice the strap hooks. These are all separate and the instructions even give you the correct locations for different turrets. 16. The 12.7mm DShK anti-aircraft machine gun is another jewel. This is the best I have seen in an injected kit. 17. A view of the left side of the model before painting. The roadwheels were removed first of course.

need to be removed from the track, but the instructions point these out for you. The tracks are beautifully detailed and while I am not a great fan of rubber band tracks, these are great.

The hull top was then cleaned up and a few items were glued on some of the fender supports. The hull top was glued onto the bottom and absolutely no filling was required. I just ran some liquid cement around the edges. The headlight set was then assembled. I did hollow out the main light for a MV lens. Sorry, but I can only go so far before I have to make a few improvements! Speaking of which, my only compliant about the kit was that Tamiya did not include the connecting hoses for the right fender fuel tanks. Although, to be fair, it would very difficult to include these hoses in an injected molded kit. Anyway, I just could not let that go, so I made the correct hoses out of brass wire and put small pieces of hollow rubber tubing over the joints.

I continued to finish up the front with all the little details. Again, they got another "ooh" and "ah" from me with the little marker lights. They are works of art. The rear deck was tackled by first cutting out the mesh and then gluing it into the engine grills. I then glued on all the rear deck hatches. I glued the 55-gallon fuel drums together and cleaned up the seams. These were then glued on, along with the snorkel. The unditching log was cleaned up, but I left it off until after painting. I usually replace the log with a real piece of wood, but this one was so well detailed with wood grain, I decided to use it.

Turret me baby

I now started on the turret. The top and bottom were glued together after I had drilled out the necessary holes for my version. The instructions are very clear on this, just pay attention to the version you are building and you should have no problem. Unfortunately for me, I cannot always read, so I drilled one hole too many for the "C" version that I ended up filling later.

The beautifully turned aluminum barrel with the resin cast-on fume extractor on the end from Chesapeake Model Design was next. Some work was required to mount the barrel, including removing the collar on the mantlet and replacing it with a styrene tube to give it something to glue to. The barrel assembly was then glued to the turret. I added all the hatches and searchlights now. The only changes I made were hollowing out the coaxial spotlight for a MV lens and using a Model Point brass antenna pod. Another really nice feature of this turret is the surface casting. The effect is beautiful, plus the strap hooks are all separate. There are also power cables for the main searchlight molded on the turret. The 12.7mm DShK anti-aircraft machine gun is another work of art and I think it's the best I have seen in plastic. I assembled it and the only modification was drilling out the end of the barrel.

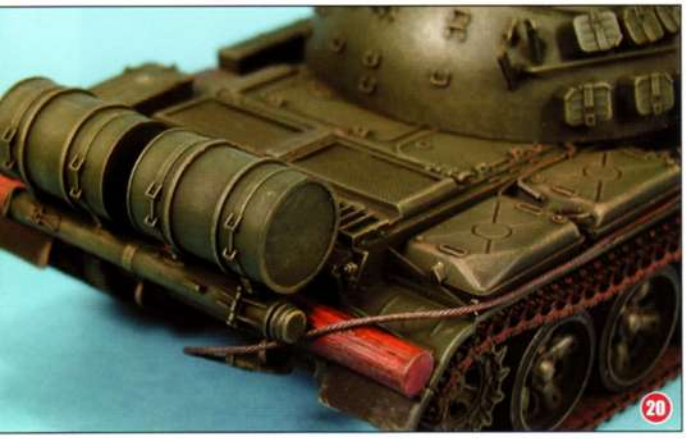
The last detail was the tow cables. I glued the heads on the right fender, but left the rest off until after painting. I used brass wire for the tow cables making sure to carefully match the plastic cable ends.

A vertical view shows how the gun is correctly offset to the right and not centered like all the earlier kits.

Easy paint job

The model was then washed in warm soapy water and sprayed with Tamiya XF-1 flat black. I then sprayed the tank with Tamiya XF-58 olive green. The roadwheels were masked and the centers also painted at this time. I painted the mantlet cover with Vallejo khaki and the spare tracks with Polly Scale panzer red brown, which I find makes a great rust color. The metal parts of the 12.7mm were painted with Vallejo black. The unditching log was first sprayed with Tamiya desert yellow. I then

18. The 12.7mm DShK barrel was drilled out, but otherwise it was built out of the box. 19. MV lenses were used in both IR lights after they had been hollowed out. 20. The unditching log was first sprayed with tan, then Vallejo wood grain was brushed on. The tow cables were made from brass wire. 21. The tracks were super glued to the roadwheels to get the realistic sag. 22. A vertical shot shows the lay-out of the gear. The mantlet cover was painted with Vallejo khaki. The decals all came from the kit and are excellent. They need no trimming and the clear film between the numbers does not show after they dry. 23.The figure was painted with a combination of oils and Vallejo paints.



brushed on Vallejo wood grain, which is a kind of stain or wash mixture that works pretty well.

The tracks were sprayed with Polly Scale panzer red brown and wiped off before the paint dried. These were then given a wash of acrylic black paint. You do not want to use any turpentine-based products on these tracks, because they will melt. They were then dry brushed with Rub n' Buff silver.

I normally used dry transfers for my Soviet tank numbers, but I wanted to try out the Tamiya decals. I first sprayed the turret with Tamiya clear gloss. The decals are another fine point on this kit since they really do not require any trimming and are perfectly registered. The film is already as close to the edges as you can get. I put them on using Micro Sol as a fixative. The whole tank was then sprayed with Polly Scale clear flat.

For weathering, I started with a thin wash of black oil paint. I then dry brushed with white, sap green, yellow ochre and burnt umber oils. For the machine gun and cables, I dry brushed them with more Rub n' Buff silver. I glued the two L 132 MV lenses into the hollowed out IR lights. I also cut out of piece of clear acetate and glued it into the large coaxial sight on the left side of the gun barrel. Tamiya did not include the co-axial machine gun, which goes on the right side, but you do not often see them mounted in reference photos anyway.

The tracks were then mounted and to get the natural sag, I super glued them to the tops of the roadwheels. I put the glue on the back roadwheels so you cannot see it when it is dry. The length of the tracks was just right to do this sag.

The kit comes with one tank commander, who I guess is supposed to be talking on his throat mike. I assembled him without any modifications. I first sprayed him with Tamiya flesh. His face and hands were painted with oil paints and his overalls were painted with Vallejo black gray.

My recommendation

What can I say, I love this kit! I built it in two evenings and took two evenings to paint it. While I included a few improvements, I think Eduard is going to have difficulty producing a photo-etch set for this model, except for possibly screens for the rear deck. The instructions are better than any I have ever used and that is saying a lot for Tamiya, since theirs are always the best. The decals are great and the tracks are quite acceptable. I am looking forward to building several more variants, using this kit as the base. Thanks Mr. Tamiya!

—Jim Hensley

MMiR RECCE

Tamiya T-55A. Kit number 35257. Kit graciously provided by the manufacturer. Suggested retail $50.00.
Model Point Antenna Pod. Kit number 3545. Suggested retail $4.50.
Chesapeake Model Designs T-55 turned aluminum barrel. Kit number 16l. Kit graciously provided by the manufacturer. Suggested retail $10.00.

References

T-54, T-55, T-62, by Steve Zaloga, Concord Publications Co., Hong Kong, 1992. ISBN 962-361-913-8. A good book with lots of photos including both Polish and Czech versions.

Soviet/Russian Armor and Artillery Design Practices 1945 to Present by Steve Zaloga, Andrew Hull and David Markov. Darlington Publications, Darlington Maryland, 1999. ISBN: 10892848-01-5. The bible.

A. This former Czech built T-55 is now at the Virginia Museum of Military Vehicles at Nokesville, VA. B. The details of the searchlight mount can be seen here. C. The right side of the turret. The empty mounting straps are for ammunition boxes. D. The fuel tanks and snorkel mount details. E. The next set of photos is of a Czech or Polish T-55A at the Duxford Imperial War Museum in the UK. Here are the connecting hoses for the two rear fuel cells. F. The hoses go from both the forward and rear fuel cells into the hull here just behind the right side of the turret. G. Here you can see the connections to the forward fuel cell and the tow cable mounts. H. Both the Czech and Polish produced version have a similar rear deck. The shape of the fan cover on the right rear has a notch seen here. The Soviet produced version fan cover is rectangular without the notch. I. The fuel tank mounts and snorkel without the fuel tanks in the way. J. The forward marker lamps on the right front side.

Prognosis: Nashorn

Dragon hits another homer with this all new kit

Here's a story for you. Once upon a time there was a company called Dragon. For a time, Dragon was the new kid on the block, the upstart—the "new guy." At this time, they were cranking out a lot of kits that no one else would touch (and they actually still are).

However, they released two kits that were based on some erroneous information. These two kits were the Nashorn and the Hummel. You see, these two models were based on the assumption that the real vehicles were simple conversions of the venerable German Panzer IV. This, in fact, is not true. The Nashorn and Hummel self-propelled guns are actually purpose built vehicles with unique hulls and drive train layouts. They each utilize components of the Panzer IV (and some of the Panzer II), but are not true variants of that vehicle.

Now, that would normally be the end of the story, but Dragon is not your ordinary plastic kit company. You see they actually had the guts to go back and get the story straight. And so we come to the hero of our tale, the Nashorn.

The spanking new DML kit that is the subject of this review was actually called the Hornisse (Hornet) when it was first introduced in 1943. However, in early 1944, the name was officially changed to Nashorn (Rhinoceros).

This was quite a vehicle. A rugged, self-propelled chassis carrying the deadly 8.8cm Pak 43 anti-tank gun, it was more than a match for any tank of the day. The subject of SPG's mounting anti-tank guns was a bit controversial in the German army of the time. There were many who thought the effort was better directed towards the production of more powerful tanks. General Guderian was one of the most outspoken opponents and this was an argument that continued to the war's end

The kit

And the kit is pretty swift, too. There is absolutely nothing left of the older Dragon release in this box. That old kit is just a distant memory. In fact, all the components are brand new, except the roadwheels and suspension. These are the same ones included in the Dragon Panzer IV G kit. You may recall that this kit was once the terrific Gunze Panzer IV G and Dragon tooled new wheels for the kit when they released it. They are worthy of mention due to the fact that they are very well done and have separate hubs, too. Neato.

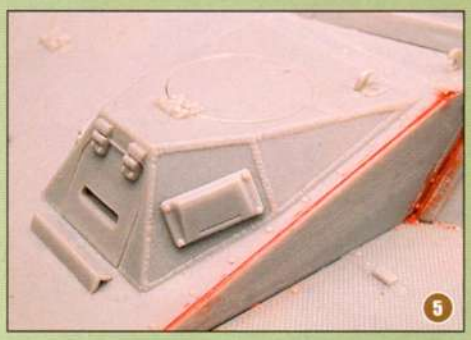
The kit contains the highly nifty, new, glossy, color instructions. These have a nice color plate (the box art), sprue layout, paint schemes and show the actual model in exploded views throughout.

The lower hull is a big, single piece and it has an unusual amount of detail on the bottom plate. The engine of the Nashorn was in the middle of the chassis, so there are several access panels and drains rendered in this area.

The suspension goes together first and there is nothing much to write home about here. I liked the separate hubs on the roadwheels because the resulting detail is sharper.

Both the early style Panzer III sprocket with the circular holes and the later style are included. You can use either, although I have seen many photos of later Nashorns with the early sprocket. I'm not sure what the rhyme and reason of this is. Both

1 & 2. The basic suspension components. Number one shows the nifty roadwheels and idler, while number two is one of the main wheel stations (excuse my blu-tak, or in this case yellow-tak). 3. You get a choice of either the late style (left) or the early style of drive sprocket.



4, 5. There are a few positioning marks to remove on the front hull. I did a little minor filling throughout. 5. The weld detail around the driver's hatch is way cool. 6, 7. Right and left views of the fighting compartment before painting showing all the interior gear in place. There are a few shallow sinkholes to fill. Note the two mystery parts where the floor meets the sides. 8. The bare-naked gun mounting platform. 9. This shows the proper position of the back step, part H30, on the top of the muffler. I wasn't sure about those aiming stakes—although they could be cleaning rods. 10. One of the distinctive features of the early Nashorn was the double pipe exhaust system. This is the left side.

sprocket types include bolt detail around the insides of both rims.

The suspension arm bases mount into the hull nice and square. There is a bit of play along their length and it's a good idea to set the model on a flat surface while the glue dries to ensure all the arms are level.

The large hull part is large enough to include the sponsons and the sides of the front superstructure, as well. This means that you are just two panels away from the front of the vehicle being complete. These are B35 and C2, which form the glacis plate and the gun platform. The fighting compartment floor and its lower wall, and fenders complete the lower hull.

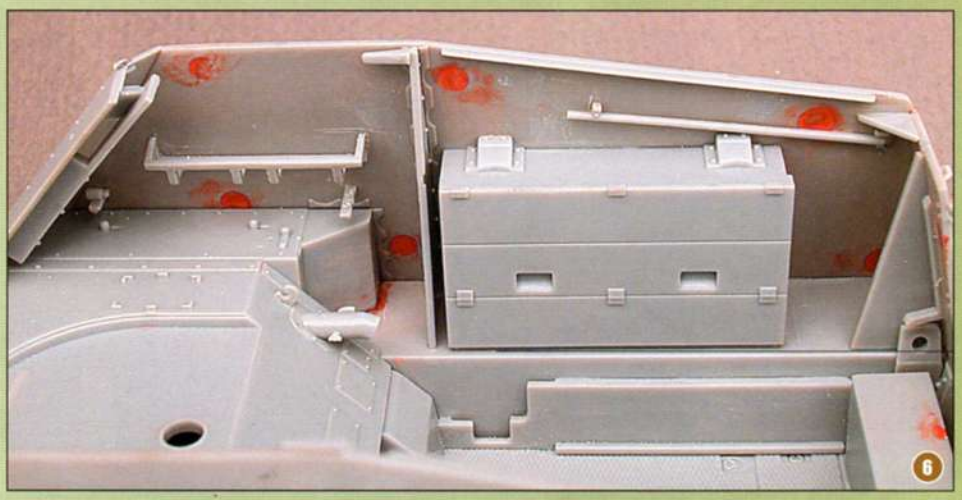
There are two rather odd panels that are installed around the fighting compartment floor. These are H19 and H20. They appear to form a support for the interior travel lock, but are not on the actual vehicle. I sort of just blindly put them in, not noticing the error until later. When you build the kit, you'll notice that they block out a good portion of the floor detail.

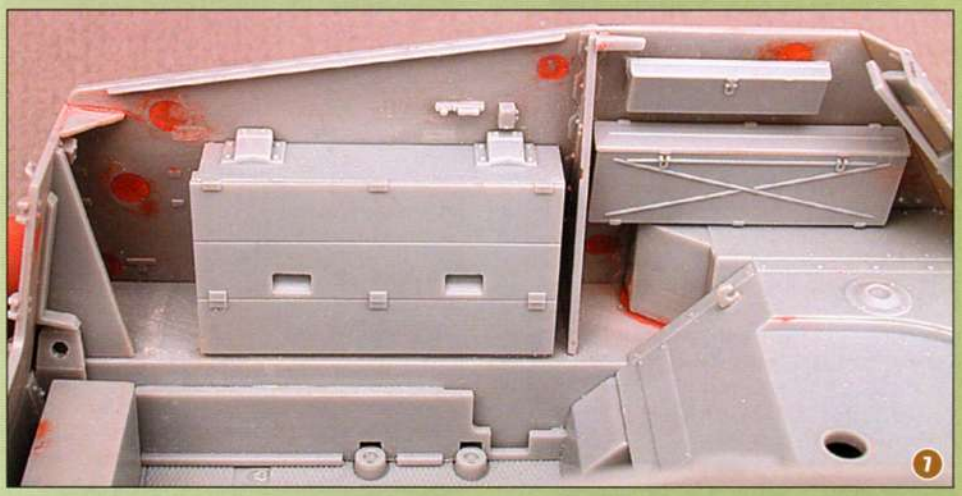
The best way to deal with these parts is to use them as templates to carefully trace the outline of the forward notch. This will allow you to accurately place the travel lock later.

The elaborate exhaust system of the early variant is rendered well in the kit. This consists of two exhaust pipes emanating from either side of the hull, both culminating in a large muffler assembly mounted to the rear hull.

The instructions call for the assembly of the gun at this point, but I thought that I would keep rolling on with the hull. Looking ahead a bit, I noticed that the gun was to be installed in its mount with the last two forward superstructure panels. This would never do for painting and I figured that the finished gun could be wedged in there somehow (it was no problem).

You'll first have to deal with a few shallow sinkholes in the large side panels. This appears to have become a fact of life for open topped vehicles, no matter whom they are made by. Also, check the instructions carefully, as there are several raised location marks that don't get parts. You'll want to clean them off at this stage. I assume these will be for parts in another version, or perhaps a Hummel.

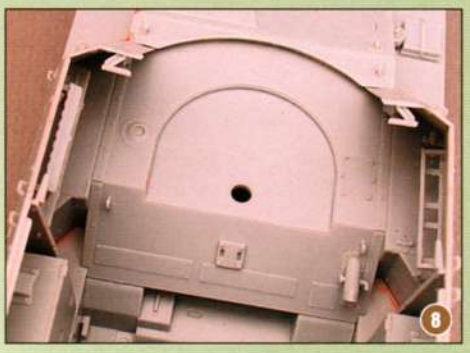


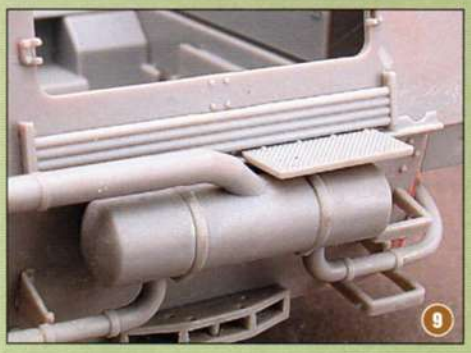


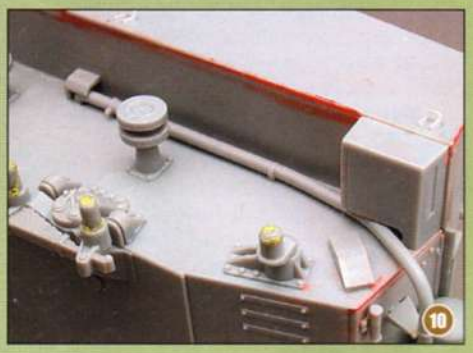
The large upper side panels also receive a variety of detail parts. These include stowage boxes and a number of other small bits, including the majority of the interior intercom junction boxes. Also included are B11 and B12, the stowage bracket for the MG 34. One of the side stowage baskets, C4 is shown installed backwards, making it look like a shelf, rather than a basket. The open side should go towards the wall.

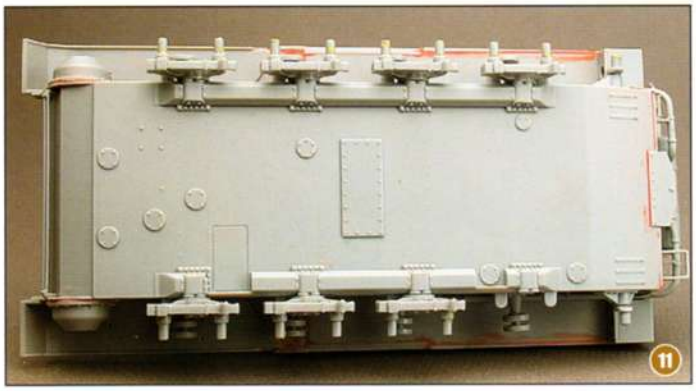
A spare antenna, B8, is also provided. It has a cool little wing nut at its base, but it's way too short. The actual antenna is long enough to completely pass though the large triangular brace, C13. A hole appeared on the real Nashorn for this purpose.

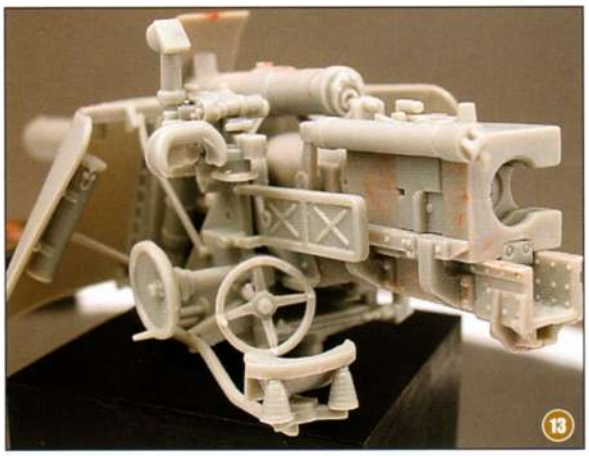
The two side panels and the large back panel, in conjunction with the interior braces, make for a

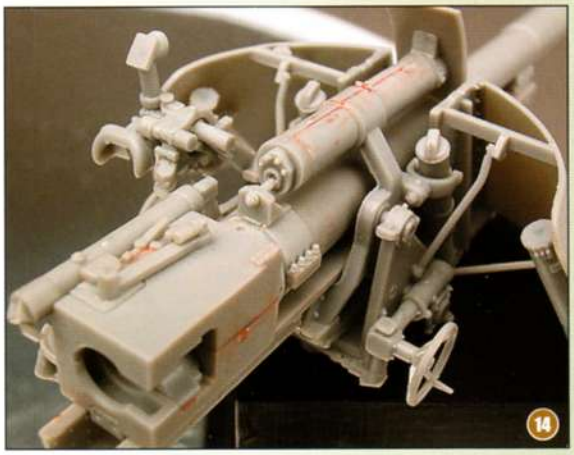












11. There is plenty of detail on the underside of the hull. Drain and access plates are all in evidence. 12. The Nashorn also used a Panzer III final drive, seen here on the left side. 13, 14. Overall views of the main gun. I thought the execution was great and very effective. Check out the great looking sight assembly, the elevation and adjustment wheels, and the bicycle style seat for the gunner. Watch out for that hollow breech, though. It is impossible to fix once it's completely assembled. 15. I forgot to mention it in the text, but the "Anniversary Bonus" in this kit is these two finely turned brass projectiles. They're so nice you'll want more. 16. The two back doors of the fighting compartment also get a minor amount of filling. The right hand door contains some very fine detailing representing the locking mechanism.

sturdy assembly. The overall fit was good and only minor filling was necessary (pickiness, really).

Aiming stakes and their brackets are provided for the rear of the hull, but this seems odd. Photos do bear out their presence, so they may have been for the rare instance when the gun was used as an artillery piece.

Another instruction oddity was the placement of part H30. This is shown placed flat against the rear hull plate. Kind of odd, seeing as it has a non-skid surface. Hmmm... This is actually a step that is installed over the muffler and it should be glued along its edge and to the left of its illustrated position.

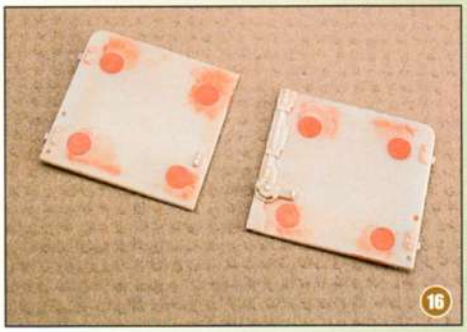
The large ammunition stowage boxes flesh out the fighting compartment. They are properly and finely detailed, but can only be shown in the closed position.

The forward most panels, C14 and C15, were installed and were the final parts of the upper superstructure.

Back to the front

There are a few detail parts worthy of mention on the front hull. The Bosch lights, for example, are very accurate and are probably about the best ones out there in plastic. Dragon is also tops in the jack department. It is also very accurate and even includes a short shaft for the foot end. I wish this was available as a separate item. Unfortunately, its bracket on the left fender is engineered backwards. It only aligns with the jack if it is upside down. I solved this by removing the footpad and placing it in its bracket, then installing the jack.

There is also a real nice travel lock for the main gun. This folding, clamp-type lock is another feature of the early Nashorn. I modified mine to display it collapsed. This was pretty simple and just entailed the alteration of one part, H12. This is the small arm that sits horizontally between the two larger arms. This small bar swings free on a hinge on the right arm and the other end has a hook to engage the left arm. The ends of H12 were removed and glued to the arms, then a small hook was formed from one of the extra hull lifting hooks. The small arm was installed on the larger one and the hook was added to the other end.

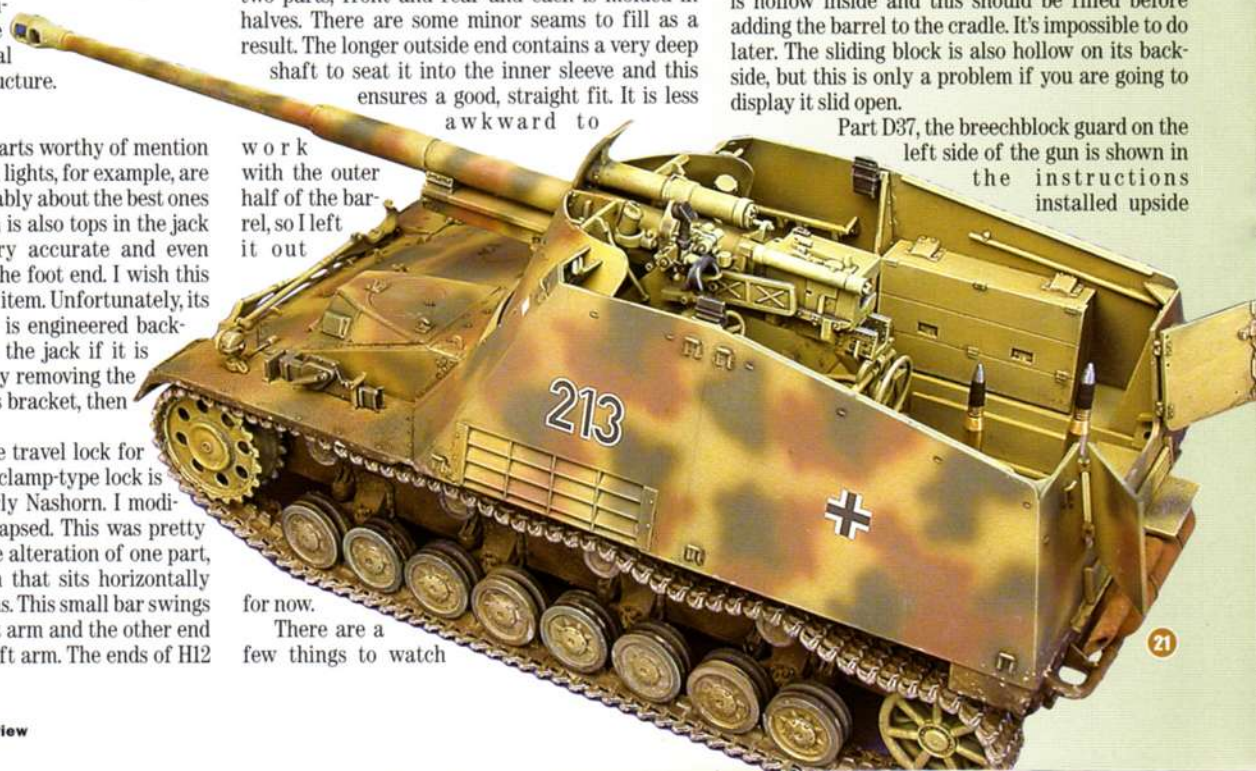


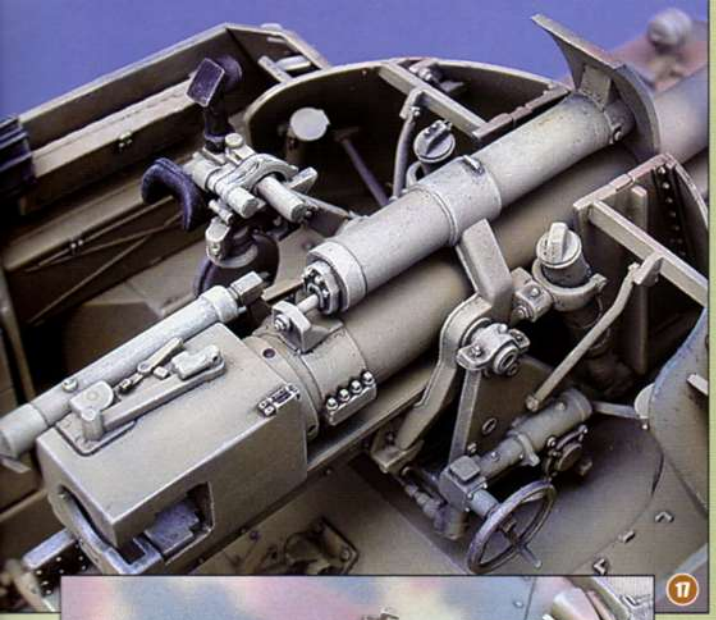
The horn of the Rhino

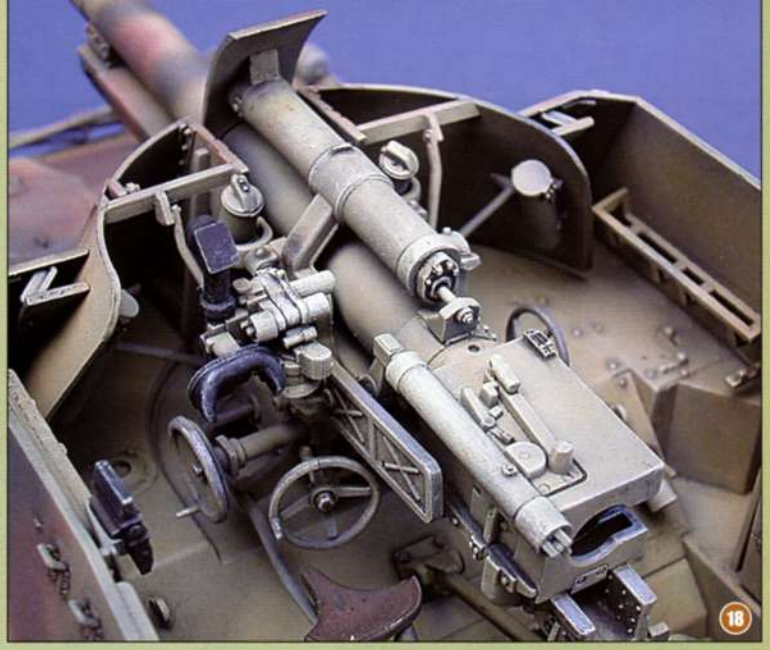
I think I was more excited about the gun in this kit than anything else. The barrel is divided into two parts, front and rear and each is molded in halves. There are some minor seams to fill as a result. The longer outside end contains a very deep shaft to seat it into the inner sleeve and this ensures a good, straight fit. It is less awkward to work with the outer half of the barrel, so I left it out for now.

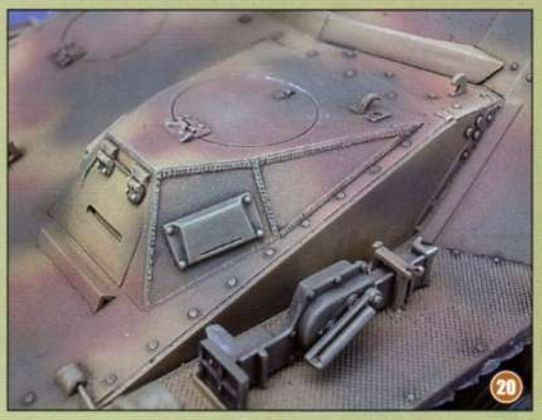
There are a few things to watch out for here in gun land. The breechblock is molded into the rear half of the barrel assembly. The block is hollow inside and this should be filled before adding the barrel to the cradle. It's impossible to do later. The sliding block is also hollow on its backside, but this is only a problem if you are going to display it slid open.

Part D37, the breechblock guard on the left side of the gun is shown in the instructions installed upside









17, 18. Two overhead views of the completed and painted gun. The model truly came together when the gun was added, giving it the properly complex look of a self-propelled gun. 19. This is the result of my minor fiddling with the gun travel lock. 20. The excellent looking driver's station and below it, the stowed jack. 21. I left the doors open to allow a better view into the fighting compartment.

down. Just flip that puppy over.

The remainder of the gun is a marvel of detail and tooling. All of the various wheels, linkages and mechanisms are rendered to a "T." DML is to be commended for an outstanding job. I was especially impressed with the fine detail along the gun slide and the complexity of the main gun sight. The gunner's bicycle style seat is also rendered perfectly and they have even made an effort to recreate its distinctive springs.

The last part of the gun assembly to be completed was the interior gunlock. This is a triangular assembly that installs just behind the front firewall in the fighting compartment. The gun was test fit with it constantly to ensure that the rear of the gun slide sat in the top of the lock.

There was one last part that I left off. More precisely, two. These were the rear mud flaps. I wanted to show off more of the tracks, so these went in the parts box.

And then...

Dragon supplies its competent version of the 40cm track in this kit, but as I am afflicted with the detailing disease in a very bad way, I simply could not resist adding something to this kit! And so it was a set of Friulmodellismo (free-ool-model-eesmo) tracks, ATL-27. This is the version with the solid horn and the angled, raised ice cleats. There are plenty in the box to do the longer runs and even enough to do a shorty for the front hull spares.

And then...

There are two suggested schemes in the kit and DML provides its usual high quality waterslide decal sheet. To speed things up, I made up my own "generic' scheme using Archer transfers. The camo job is a basic three-tone one. I tried to gather the color in small clumps, rather than broad bands, just to be a little different. All painting was done with Tamiya paints. Drybrushing was done with Vallejo paints and the gun was installed once this was complete.

Because of all that open space on the suspension, I went a little heavier on the weathering. After doing the traditional wash and drybrush, I sprayed on heavy amounts of Tamiya thinner followed by a sprinkling of powdered pigment (actually Hudson & Allen mud), then more thinner, then more pigment. This tends to run and clump in a very "dirty" fashion. I was careful not to touch the surface of the model, as the thinner will soften the paint until it is dry again.

The tracks were given a bath in "Blacken It," followed by a wash of black oil paint. I used a hairdryer to move it all along.

A much thicker version of the mud mixture with a small amount of static grass was jammed into the tracks and the thinner mixture was also washed over, as well. Once dry, the tracks were buffed with a Scotch Brite pad to bring out the metal highlights. The "mud" tends to dry very light, so certain areas were darkened with a spray of Tamiya Clear. The trick is to apply it sparingly and stop just before it starts to become glossy.

And then!

That's my tale. I gotta say, I loved this kit. Some of this is because it's so nice to have an accurate one on the bench, but it's a great model all on its own. True, there are a few pitfalls in the instructions, but now that you know what to look out for, what's the big deal? Huh? Overall, the detailing was excellent, the tooling was superb and the finished kit has a great visual impact. It was already looking really good, but once the gun went in I had to step back and say, wow! (Or something like that)

The dimensions of the kit are sound according to measurements I once took of the Aberdeen vehicle (so what if I never got around to scratchbuilding it?). There aren't many full plans out there. I did have a set of plans in the old "Strum & Drang" series on the Panzerjäger and the model matches these plans perfectly.

So, with the later version of the kit hitting the streets as I write this, what are you waiting for? Buy two, they're small!

—Pat Stansell

MMiR RECCE

Dragon Sd.Kfz.164 Hornisse (Nashorn, Early Variant). Kit number 6165. Kit graciously provided by manufacturer. Suggested retail $35.98

References

Panzer IV & Its Variants by Walter J. Spielberger, Schiffer Publishing Ltd., 1993. ISBN 0-88740-515-0. Just a small blurb on the Nashorn and the Hummel.

Panzers At Saumur No.3, Dai Nippon Kaiga Co. Ltd., 1992. ISBN 4-499-20597-2. Probably the best coverage of all the available references. Photos, drawings and more. Beware the plans, though. They are a little off.

Panzer Jager in Action by Uwe Feist and Mike Dario, Squadron Signal Publications, 1973. An oldie, but a goodie. A couple of good photos.

Panzer Jager by Horst Scheibert, Schiffer Publishing Ltd., 1998. ISBN 0-7643-0395-3. Better photo coverage and best of all, available!

Sturm & Drang No. 6, Delta Publishing. 1993. Real hard to find, but definitely worth the search.

Bella Benelli

The Model Victoria Benelli M36 Mototricicio

In 1936, the Italian Royal Army began using the M36 Mototriciclo (motorized tricycle) as a hauler of light goods and equipment. It served on all fronts during World War II. Its 493cc single cylinder, side valve engine developed 13hp. Its cargo capacity of 400 kg, or about 880 pounds made it very useful. It could be configured to tow light artillery such as the 65/17 and the 47/32 anti tank gun.

Kit overview

This kit is cast entirely in resin, with a steel wire rear axle and two sheets of photo-etched metal containing the wheel spokes, handlebar controls, and cargo bed frame support and chain drive. A seated driver is included with separately cast head and a holstered pistol.

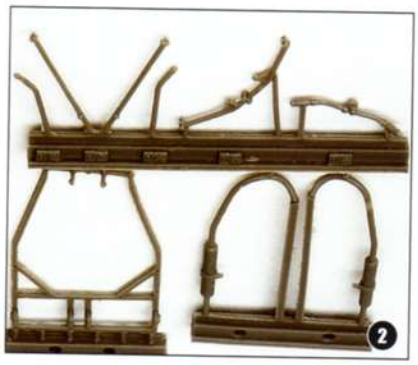
The casting quality throughout is excellent. Model Victoria chose to mold major subassemblies as one piece. Their commendable effort is not easy to do, but they have done it correctly. The fruits of their effort are that the entire engine, front fork, cargo frame and cargo bed are each cast as their own piece. In addition, the detail is excellent and warping or casting flaws are virtually nonexistent.

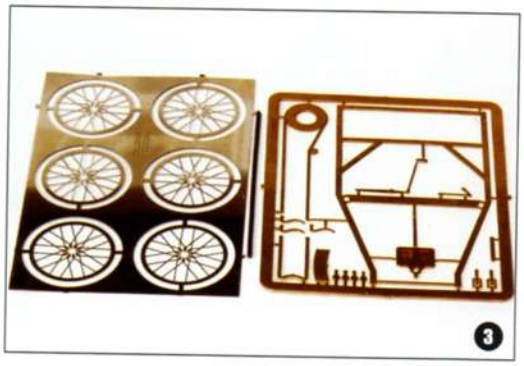
The exploded-view instructions include a short history of the M36's use and specifications. A two-view photograph of a real one serves as a guide for decal placement and painting. The instruction sheet diagrams could be more specific regarding the smaller parts. The waterslide decals are excellent quality and provide four different number sets from which to choose.

Upon initial inspection, the only problem noticed was the figure's broken left hand. All the parts are clearly labeled with numbers and the pour plugs have minimal contact with the parts. Cyanoacrylate (CA) glue is the adhesive of choice.

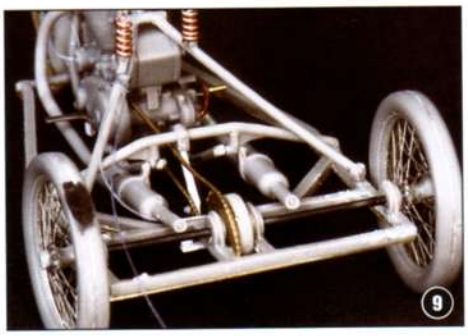
Do a wheelie

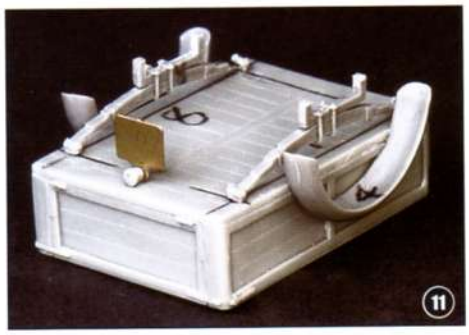
The rubber tires and rims are cast in two halves, split down the middle. Though not obvious in the instructions, the axle spindles should be drilled so that the rear axle will pass through. There are two

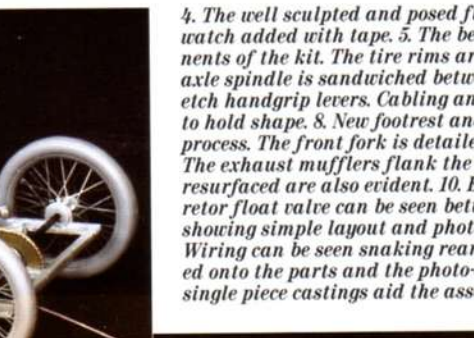


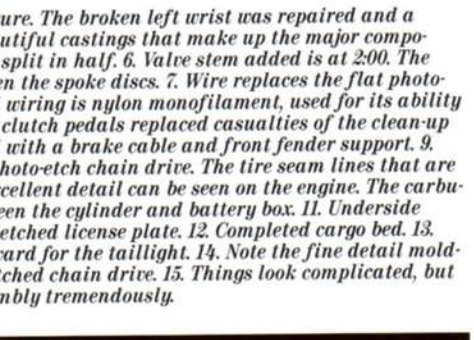


1. The folded tarp, fenders and leaf springs. The smaller parts below include the seat, clutch plate and foot controls for the engine. 2. Exhaust pipes, bed frame, frame supports and handlebar. 3. The photo-etch compliment. The spokes are an especially nice feature.

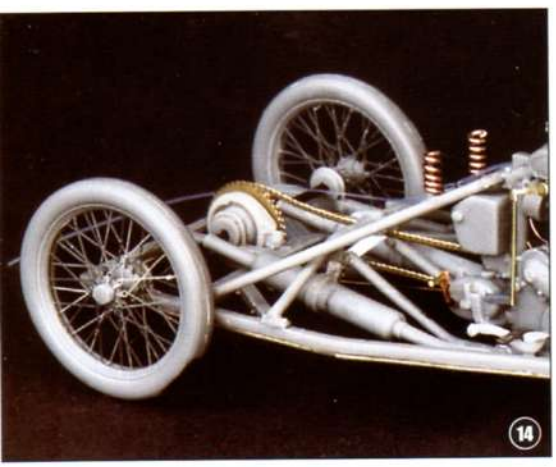








4. The well sculpted and posed figure. The broken left wrist was repaired and a watch added with tape. 5. The beautiful castings that make up the major components of the kit. The tire rims are split in half. 6. Valve stem added is at 2:00. The axle spindle is sandwiched between the spoke discs. 7. Wire replaces the flat photo-etch handgrip levers. Cabling and wiring is nylon monofilament, used for its ability to hold shape. 8. New footrest and clutch pedals replaced casualties of the clean-up process. The front fork is detailed with a brake cable and front fender support. 9. The exhaust mufflers flank the photo-etch chain drive. The tire seam lines that are resurfaced are also evident. 10. Excellent detail can be seen on the engine. The carburetor float valve can be seen between the cylinder and battery box. 11. Underside showing simple layout and photo-etched license plate. 12. Completed cargo bed. 13. Wiring can be seen snaking rearward for the taillight. 14. Note the fine detail molded onto the parts and the photo-etched chain drive. 15. Things look complicated, but single piece castings aid the assembly tremendously.



16. The bed is sprinkled with tan weathering powder for a dirty look. The license plate decals are very thin and adhere well. 17. The figure needs little prodding to sit where he belongs. Vallejo paints were used for both the uniform and flesh tones. 18. Gunze Sangyo H303 Green was chosen to depict the Italian Army Green. Decals provide the plate number and the logo on the fuel tank. A dusting effect was achieved with light over sprays of earth brown. Gunze Sangyo Mr. Metal metallic paint is effective for reproducing the engine coloration.

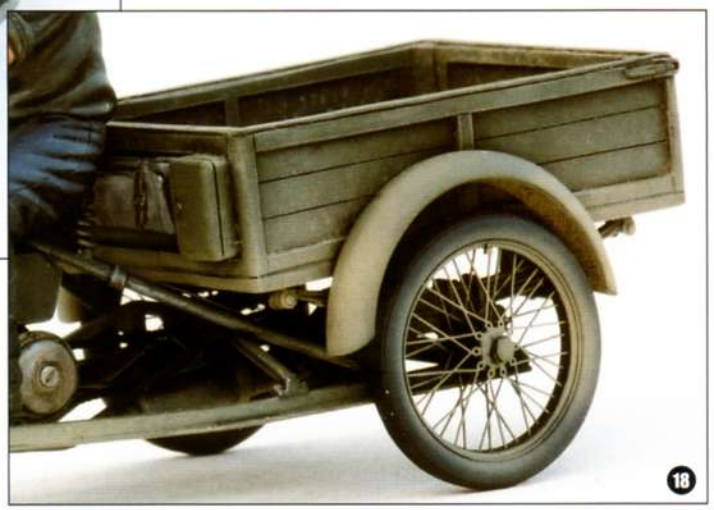


photo-etch metal spoke discs per wheel. These sandwich the axle spindle and in turn are held together by gluing the tire and rim halves to each other. The spoke discs must be offset from each other so that each spoke intersects the rim at different, evenly spaced intervals. The resulting assembly gap down the middle of the rubber tire must be repaired with filler and sanded smooth. This destroys some of the tire's tread, but there's no way around it. The tires were "flattened" slightly with a sanding stick for a more realistic sit. Wire valve stems are added to the rims.

The cargo bed and frame

The cargo bed's slight warp was fixed with hot water while pressing it down on a sheet of glass. Light scraping cleans up the edges and a small bubble hole was filled on the front toolbox. The fenders install easily, but the leaf spring units must be carefully attached to ensure the level sit of the cargo bed. A photo-etch license plate with its rear light mounts to the underside. The placement of two photo-etch gate latches is confusing, so simpler replacements made from wire are used in their place. A nicely molded tarp is stowed on the front side of the bed. What may look at first to be bubble holes are really the tarp's grommets.

The cargo bed's resin frame is strengthened by the addition of a thick photo-etch frame. Frame supports 13 and 15 install without incident. The photo-etch chain drive attaches to the clutch plate on one end and the chains attach to the final drive housing. It's left unglued, since the engine has yet to be installed. The axle is trimmed to 35mm in length and the placement holes opened up in the frame. It will keep the clutch plate in place until the engine is installed.

Part 26 seems to be a chain drive guard. Part 25 serves as a lever to either tension or engage the chain drive and it attaches to a tiny pulley on the photo-etch chain. These parts are delicate and may easily break during cleanup.

Start 'er up, the engine

The engine's single piece casting is a marvel to look at. The cylinder head, crankcase, final drive housing, carburetor, fuel tank, battery box and the surrounding frame are all there. There's no lacking of detail, either. Tiny bolt heads adorn the finned cylinder head and crankcase. Clean up is minimal, just a light scraping here and there.

The photo-etch shifter linkage attaches to the side of the fuel tank where the shifter knob is. The resin kick-starter, clutch and footrest parts can be added now; but like the photo-etch, they are best left off until later to avoid damage. However, if damage does occur, wire replacements are easy to make. The driver's seat can be added to the frame or glued to the driver figure's rear end. The seat's two coil springs are made with copper wire.

Stick a fork in me...

The front fork is one piece and cast with amazing detail. The headlight has a nice bulb molded inside, which will show up nicely when a clear acetate lens

is added. Before installing the headlight, a coiled wire spring must be made and placed behind it. The siren and photo-etched license plate are also attached at this time. Photo-etch part 6 is the lower fender brace, but the upper brace must be constructed from wire or stretched sprue. The photo-etch brake cable fitting, part number 12, attaches to the hub. Contrary to the instructions, it should be installed on the front side of the hub. The fork snaps onto the bike's frame, but a metal pin may be added for strength. The handlebar is added later.

Kick the starter—final assembly

The bike's subassemblies are now united into one. This operation is smooth and without difficulty. The frame braces and two exhaust pipes are added without a hitch. Now that all the major construction is finished, the delicate parts now added. The handlebar mounts to the top of the fork and the photo-etch thumb controls are attached. The flat photo-etch handgrip levers are replaced by round copper wire ones.

Motorcycle models need electrical wiring and brake cabling. Unfortunately, Model Victoria provides no diagrams or suggestions. The photocopied photograph of a real M36 in the instructions doesn't help much. Issue 47 of Steel Masters has three photos of the real thing, but are not helpful either. Making a "best guess" on the handle bar's eight controls, it includes the brake and clutch cables and electrical leads for the lights and horns. Also likely is the throttle, on/off and fuel shutoff cables. These controls are wired using Nylon monofilament (fishing line). It works well, since lead and copper wire kinks so easily, but the monofilament holds its shape. Occasional segments of tape are applied to the frame where the cabling is tied down.

Painting and markings

The instructions suggest "Army Green" for the camouflage and provide Humbrol 102 as a match. A close enough match is Gunze Sangyo H303 "Green," an acrylic paint. Before the green, a base coat of flat dark gray is applied to check for flaws that may have been overlooked. The wheels are painted off the model. When ready, the green is sprayed lightly onto all areas except the tires and engine. An advantage to the dark gray undercoat is that the green can be applied in thin coats covering mostly the upper surface areas. This allows a little depth and color gradation that is soft and subtle. Next, the metal surfaces are painted by using the excellent Gunze Sangyo Mr. Metal paints. The pigmentation is ultra fine and the paint can be buffed for a metallic sheen. Aluminum is used for most of the engine, but the cylinder head is painted Iron. A thin black paint wash is applied to the metal surfaces to add some depth.

After painting the red taillight, the black hand grips and knee bumpers, the decals are applied. There are front and rear license plate numbers and a Benelli logo for the fuel tank. They disappeared into the surface after application for a realistic appearance. An earth tan spray is then concentrated on the underside and lower portions of the model to simulate road dust. Light dry brushing with tan artist oil paint helps highlight some of the detail. The headlight interior was previously painted silver and sealed with a punched acetate lens. Now, over spray on the lens is removed by a brush moistened with window cleaner.

Figure it out

The figure's mold seams are removed and the broken hand reattached. The pose is realistic and the sculpting very well done. He is painted exclusively with Vallejo acrylic paints. There is a challenge to seat him on the M36 with his feet planted on something and his hands gripping the handlebars. Fortunately, this is not a difficult proposition, due to the superb posing by the sculptors. The seat springs may need adjusting until the height is just right.

Conclusion

This is a great kit, well done in all the major areas. The casting quality is clearly among the best. The nature of a model this size poses a challenge to any builder, but Model Victoria takes a sensible approach that alleviates most of the pitfalls that could occur. The impressive result does not come at a small price, but the kit can still be considered a good value. Experience with delicate parts is definitely a prerequisite that one must consider before buying.

—John Robinson

MMiR RECCE

Model Victoria Benelli M36 Mototriciclo. Kit number 4035. Kit graciously provided by Model Victoria's U.S. importer, Chesapeake Model Designs. Suggested retail price $45.00.

References

Steel Masters #47, article by Maximiliano Biaggo, Armes & Collections, Paris, France, 2001. ISBN: 1251-3431. French language kit buildup article with two M36 photos.

The Challenger Challenge

The Tamiya kit gets the Oprah makeover with help from Accurate Armour and Eduard

Every now and then you get a certain itch to tackle an older kit and bring it up to snuff. Tamiya's Challenger 1 (Mk.3) as been around for a while the first version of the Mk. 3 being released in the late 1980's. It was followed up with the Desert Storm version sometime in the early 1990's. At the time the kit, was state of the art and is still a righteous kit in its own right. Sadly though, time has moved on and the kit is starting to show its age when compared with some of Tamiya's more recent releases. So I thought it might be a little fun to resurrect the old stalwart with some of today's modern goodies. I will admit, with all of the new kit's to chose from and a pile of unbuilt kit's that seems to be getting bigger by the week, it was tough. With that said, the old girl can be made into a very impressive model and give one a sense of accomplishment by enhancing it a bit.

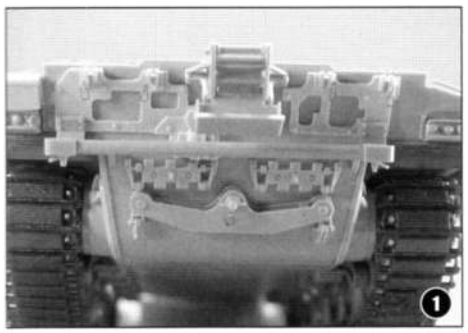
The British Army recognized a need for a replacement for the aging Chieftain and with the British armaments industry left in the lurch the government saved the day by adopting the Iranian bound FV430/3 as the Chieftain's replacement and in the process, saved many a worker's job! For British use the FV430/3 was upgraded to include a hydro-pneumatic suspension and the TOGGS vision system was relocated from the turret roof to the turret's right side, reducing the overall height of the vehicle. The new vehicle was designated FV430/4 Challenger. Production resumed at the Royal Ordinance Factory in Leeds, now Vickers Defense. The first Challenger 1 MBT's went into British Army service in 1983. The Royal Hussars, based in West Germany were the first regiment to change over to the new tank. By 1995, the British Army had a total of 372 Challenger 1 MBT's in operation.

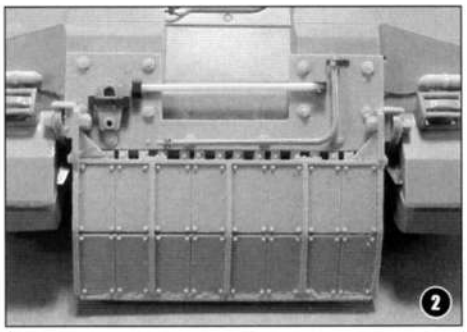
And now it's time for a model

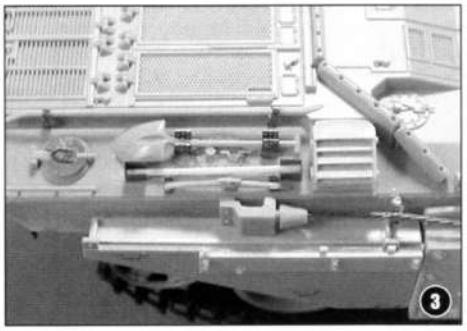
Having built a few variants of the Challenger including both the NATO and Desert Saber versions, I knew from the start that I needed to make this one a little different. So I chose to tackle a Challenger 1 Mk. 3 from the "Joint Guardian" operation, Kosovo 1999. For some reason, you don't see many modelers embracing this subject as a setting for their work. I started digging into the old reference pile to see what I could come up with. Sure enough, some cool little factoids came to light regarding our subject. When the British Army went from a peace keeping role to that of an ass kicking posture, it was determined that the armored spearhead needed a little more protection from the plethora of anti-tank weapons floating around the Serbian countryside. For added insurance, 28 Challenger 1 Mk. 3's were fitted with the same Chobham appliqué armor kits used in the Gulf War with great success.

After studying photos of the conflict and talking with Veterans, the subject became more and more interesting. First off, many of the appliqué armor kits were the same ones used in the desert some eight years earlier. This is evident from the fact that many of the panels were still painted desert yellow, while the rest of the tank was painted in the traditional green with black bands. In addition, the added fuel drums stored on the rear of the desert version were removed with their mounting brackets left in place. The fuel drums were removed for fear of fire, but some photos showed the drums still on with the bottom of the drum cut off and used as extra storage bins. Cool. Photographic study also revealed that the Challengers in Kosovo did not follow any hard and fast rules as far as stowage bins went. A variety of bin types and locations was the norm and most of the tanks were stowed in the neat British style, unlike the U.S. tankers, who still love to pile on the stowage.

With the old interest meter peeked, I began to look around for some suitable bits to pull the whole thing off. First on the list was Accurate Armour's front reactive and ceramic armor update set. This includes armored side skirts, a front armor module and the various mounting brackets. The second set was Accurate Armour's fuel drum update set. This includes improved external fuel drums with

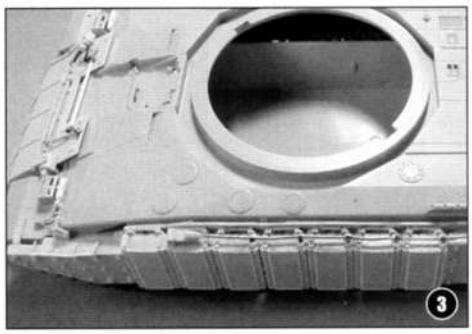


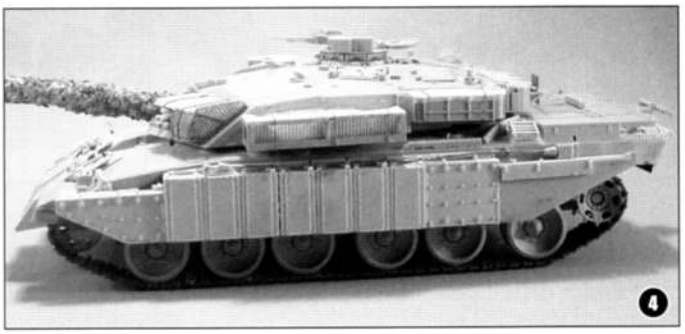


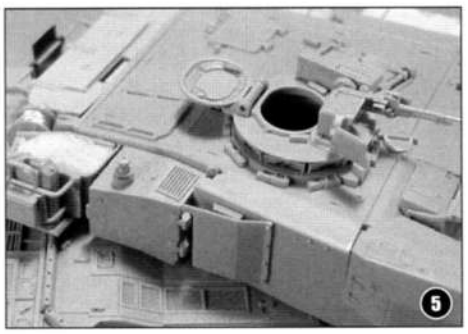


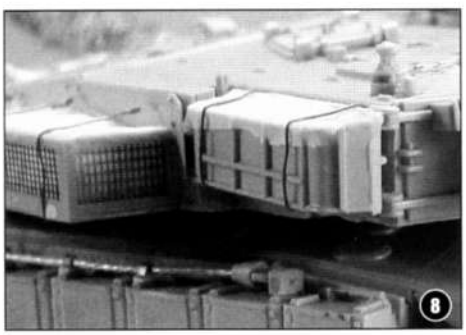
1. The Accurate Armour fuel tank brackets were mounted, along with the mounts for the tow bar. The last Accurate Armour bit to be used was the first aid box that mounts above the left side taillight. The remainder of the rear hull details came from the kit and Eduard. 2. The Accurate Armour front armor module in place with some of the kit parts and a few Eduard pieces. 3. The tool clasps were replaced with the Eduard bits and the pickaxe handle was replaced with plastic rod. Also seen here is the Accurate Armour replacement exhausts.

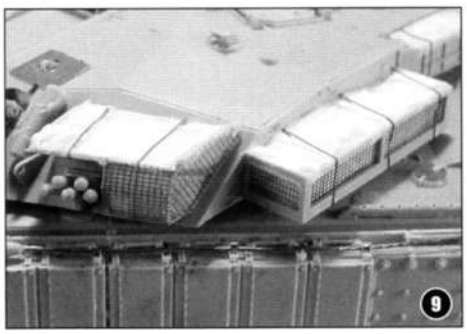
3, 4. The side skirt update parts required a bit of clean up and straightening in the microwave. The handles on the top of the right side armor panels were wrecked in the clean up process, so they were replaced with plastic rod. 5-10. The kit turret was a good, sound piece, but it was improved with the Accurate Armour

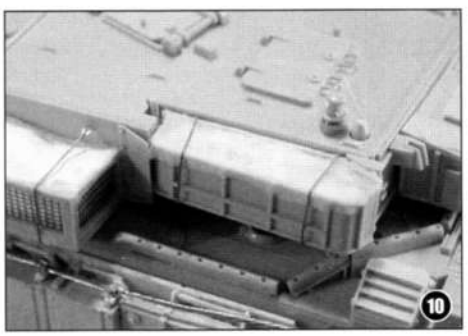


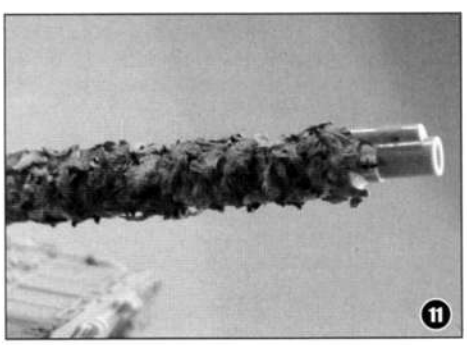


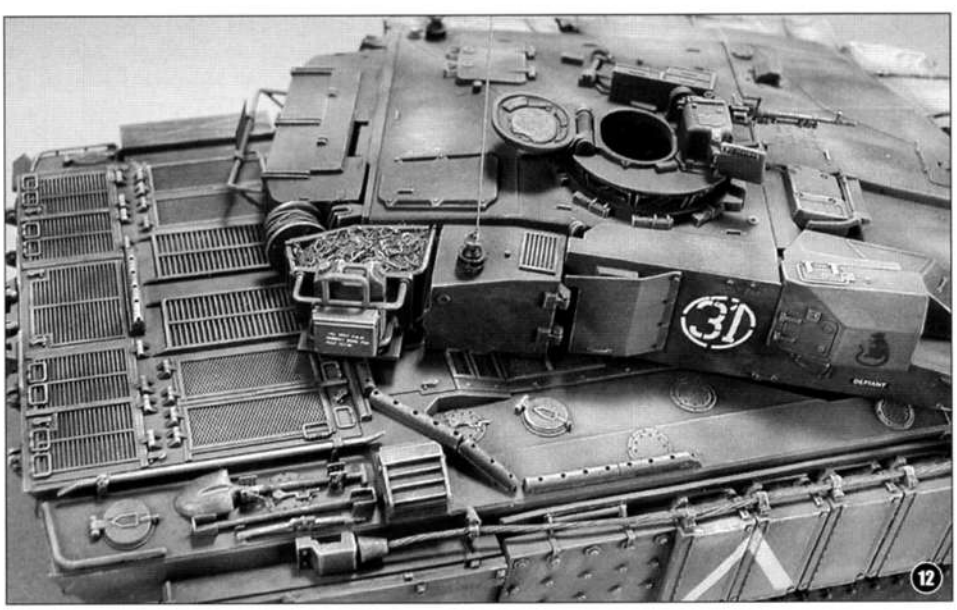












rear bins and neatly prepared stowage bins. Also note the Eduard panel over the main gun in photo 7. 11. To represent British modern camo net on the barrel, I wrapped it in surgical gauze soaked in white glue and water. After the gauze dried, I glued on Hudson & Allen leaves.

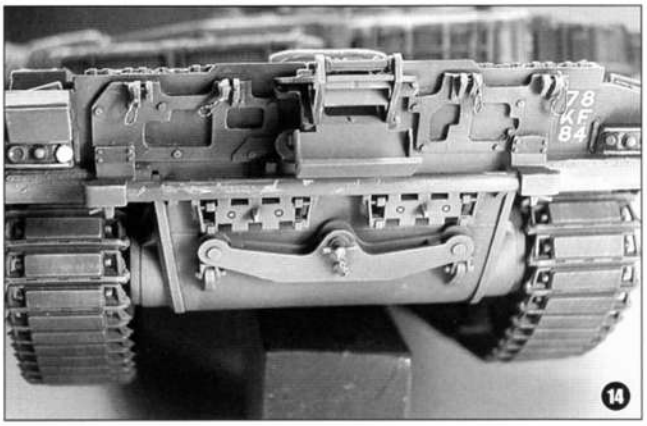
mountings and an improved turret bustle hatch. No kit up-grade would be complete without a suitable photo-etch set, so the Eduard set for the Challenger 1 was added to the project. The Eduard set is very comprehensive and includes their new express masks that provide a few different tactical markings and the inverted "V" for the coalition symbol.

I found many of the bits to be very useful and a must to pull off a good Challenger. On the other hand, many of the parts in the set were not used.

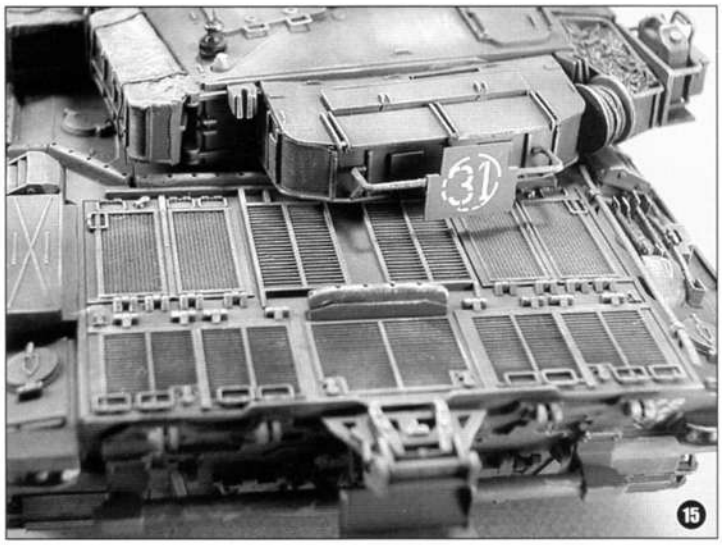
The suspension mounts

The suspension and tracks were assembled per the instructions, which take you through step 4 in the instruction sheet. No big deal here. Step 5 offers the option of a NATO or Desert version gun travel lock; I went with the Desert version but I don't think you could go wrong either way. With the lower hull squared away, you now have to start deciding what photo-etch bits you will use and remove all the necessary kit detail to accommodate the new bits. The mounting holes for the kit's fuel drum mounts D8 and D9 need to be filled, so the Accurate Armour brackets can be used. The Accurate Armour brackets were mounted along with the mounts for the tow bar, which is molded on the kit mounts D8 and D9. The Accurate Armour set also included a replacement tow hook with the mounting hooks already cast on, so this was used as well. The last Accurate Armour bit to be used was the first aid box that mounts above the left side taillight. The remainder of the rear hull details came from the kit and the Eduard photo-etch chains and mud flaps were added per the instructions.

Before joining the upper hull, I removed all the



12. All dressed up and lookin' pretty. The inverted "V" was painted off white with the airbrush using the Eduard masks. 13. The kit's external fire extinguishers were replaced with spare Accurate Armour extinguishers. These have all the detail already molded on. Their markings are from the kit. 14. The completed back end. The ID number on the right is also from the kit decal sheet. 15. The small ID plate is an Eduard part and the marking is from AA. 16. One of my neatly prepared turret stowage bins. Screen by Eduard, tarp by Nick.



details required for the photo-etch bits. In step 6, you'll need to add the front emergency fire extinguisher recesses B49 and B50 from the inside, as well as the rear mounting tab, B68 and the driver's window glazing before attaching the upper hull. Eduard supplies many goodies for this portion of the tank, but again, I was fussy in what I chose to use. The rear engine deck screens are very nice, but Eduard has you remove the molded on lift handles and replace them with their flat ones. The kit screens looked fine to me and the butcher job was not worth the effort, so I left it alone. I also omitted the Eduard headlamp assemblies, mirrors and mounting brackets, which are flat, instead of round. I used the kit headlamp parts and drilled the lights out for MV lenses, 128. The kit's mirror brackets were drilled out and a piece of bent rod was inserted. Photos show that many vehicles are missing their mirrors.

Continuing with the front end, the Accurate Armour bow armor module was sanded to fit, as well as the glacis armor plate. They both fit with little trouble. These parts are a big improvement over the kit parts. The Eduard front fender mounts were added, 1 and 3, as well as the front mud flap mounting brackets. The kit doesn't supply a light for the outboard lamps, so these were made using a punch and die set and lead foil. The power conduits were made from thin solder and the tee sections were made from plastic rod. Lead foil was used to represent hold down brackets for the conduits. I used the rest of the kit parts for the remainder of the front end, using the Eduard parts for the tool stowage. Part B41, pry bar, was replaced with plastic rod and the driver's hatch was detailed using the Eduard set. The kit's external fire extinguishers were replaced with spare Accurate Armour extinguishers. These have all the detail already molded on.

Skirting the issue

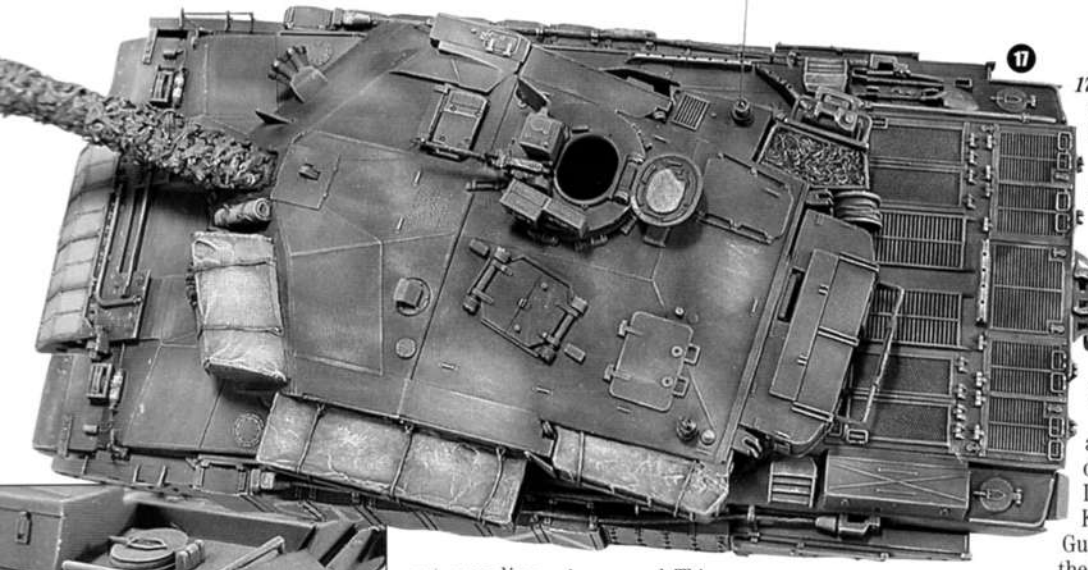
Next up were the side skirt update parts. These required a bit of clean up and straightening in the microwave. The handles on the top of the right side armor panels were wrecked in the clean up process, so they were replaced with plastic rod. With the skirts cleaned up, a few dry runs were required in order to find the "sweet spot." With the Accurate Armour skirts and brackets in place, I filled the mounting holes on the rear sides for the mini flaps, B47. The kit's rear most side skirts were used and the molded-on grab handles were removed and replaced with the Eduard handles. While working on the sides, I also added the Accurate Armour exhausts. These are a major improvement over the kit parts, D2. The remainder of the rear hull was pretty straightforward. The tool clasps were replaced with the Eduard bits and the pickaxe handle was replaced with plastic rod. The kit tow cables were spruced up a bit by cutting off the ends and drilling them out. I replaced the kit cable with Accurate Armour brass cable that was annealed. This allowed the cable to be bent to achieve the proper look. The Eduard cable clasps were used to retain the cable.

Tales of the turret

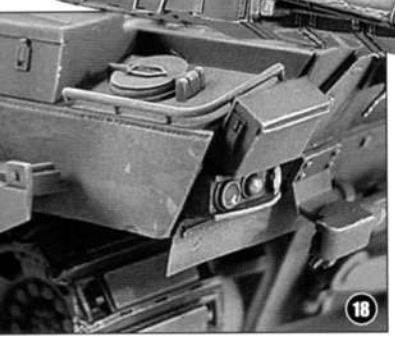
The turret on this beast is the most complex aspect of the project. In step 16 you add the rear bustle to the turret bottom. Extreme care must be taken here to get the bustle sides, B25, B26 and B28, to line up properly. You will also have to attach the gun mounting that requires a nut and bolt that allows the gun to elevate. Before attaching the turret top, the commander's vision window and frame, B98, needs to be added from the inside of the turret top. With the turret top bottom and rear added, I discovered a huge gap in the gun mounting even with the main gun dry fitted. It was so big you could see clear to the back of the turret. Yuck! This was fixed by filling the gap with AB putty, being careful not to cover the 7.62mm coaxial machine gun. The putty was sculpted to represent canvas and the main gun was attached and elevated to a random position, because when the putty was dry, it would not allow the gun to move.

I opted to cover the barrel in a camo net and the British modern camo net is a tough thing to pull off. To represent it, I wrapped the whole barrel in surgical gauze soaked in white glue and water. After the gauze dried, I glued on Hudson and Allen leaves to give the appearance of the familiar camouflage netting. Each leaf was dipped in white glue and individually placed on the gauze, working from the front to back. I know this seems insane, but it was the only way I could see to get the look of the netting.

With the main gun issues resolved it was time to go to town on the turret. In step 16 the turret side part B72 and B78 were added and things started to take shape. The kit aerial lift hooks and smoke dischargers were used and the safety beacon was cut off and the base used to fill the hole. The beacons are not used in a combat zone. Duh! I used the Accurate Armour rear stowage bin hatch, which is an improvement over the kit part, B31. The Eduard

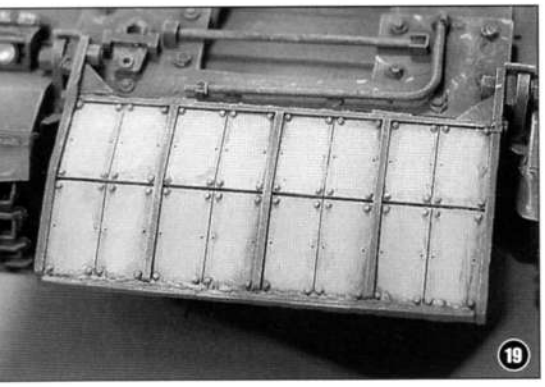


17. The entire model was drybrushed with a variety of oils. 18. The rear lights were first painted silver, then picked pout with Tamiya clear red and orange. 19. The front armor panels were often left in their original desert yellow. 20. The completed tool suite and AA replacement exhaust on the right rear.



set supplies all of the wiper blades for the commander's copula that are very usable and absolutely necessary. In addition, Eduard also provides screens for all of the stowage bins including the front bin, which makes this set a must and worth the price of admission. Having used the kit-supplied mesh on other projects, the photo-etch screens were a Godsend.

As I mentioned earlier, stowage arrangements



varied on Challenger's used in the Kosovo conflict. I used the large basket on the left side that was quite common and left off the commander's bin, part B33, on the right side. The commander's bin does appear in photos and was used but I wanted my kit to look a little different. A smaller open bin was also used in place of the covered one, but this would have to be scratch built. To complete the turret bits, the commander's hatch was detailed on the inside using the Eduard handles. The right rear most hatch is for access to the turret batteries and includes molded-on grab handles. These were removed and replaced with the Eduard handles. Brass wire was wrapped around the communications wire spool and the Eduard rear ID plate was bent and added, rounding out the build.

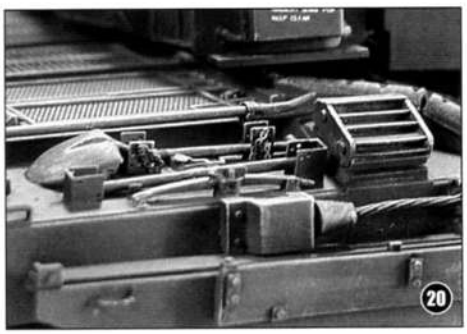
Haven't we bin here before?

All of the bins needed some sort of stowage to represent that "combat look." Photo reference showed some tidy stowage arrangements with most, if not all, of the bins being topped with canvas covers. I used tissue paper soaked in white glue to solve the problem. The front and left side bins needed the inside of the mesh coated before they could be covered. This was done in sections and the panels were allowed to dry overnight. To give the appearance of the bins being filled, wads of soaked tissue were packed into the bins and allowed to dry before covering them. Laying out the approximate shape on the tissue paper and cutting the shape out with a sharp pair of scissors made the covers. The pieces were then laid on the bin and wet with a glue and water solution. The excess was trimmed away with a sharp blade. The rear most right side bin was also stuffed with gauze soaked in the glue mixture. Tie down brackets were stolen from an old Accurate Armour fret and the tie downs were made from thin solder. At this point, the construction was complete, so I allowed myself a moment of contemplation before moving on to my favorite part, painting.

Painting Challenge(r)

Before painting, the model was primed with Armory black primer from the can. Primer from the can is very useful, but needs to be shaken (not stirred) before spraying. I will usually run the bottom of the can under hot tap water for a few minutes to get all of the pigment broken up. The primer coat was put on in a few light coats, making sure everything got coated evenly. After the primer was allowed to dry, the model got a base coat of Tamiya Field Gray, again working with light coats for a uniform finish. In the same session, the black bands were shot with Tamiya NATO Black. I applied a light wash of Winsor & Newton Ivory Black and Raw Umber oil paint When this dried, I went in with a thicker wash of the same mixture and picked out all of the fine detail. For a change, I dry brushed the piece using oil paints. The green bands were treated with progressively lighter shades of green using Sap Green as the base and Yellow Ocher as a lightener. The final pass was applied with almost pure Naples Yellow. The black bands were dry brushed with a mixture of Ivory Black and Titanium White, with pure white used very subtly for the final highlights.

I usually dry brush with acrylics but have found this very hard on the brushes and therefore, the wallet. The oils dry much slower and go a lot farther. Just be careful while handling the model. Sticking with my Kosovo theme, I marked the vehicle "C" Squadron 3rd Troop, Kings Royal Hussars. During Operation Joint Guardian June 1999, the Kings Royal Hussars and the Irish Guards formed the 4th Armored Brigade and donned the black Jerboa taken from the famed Dessert Rats. The tactical makings and the little rat came from Accurate Armour, while the vehicle ID number on the rear, as well as the fire extinguisher markings came from the kit. The inverted "V" was painted off white with the airbrush using the



Eduard masks. This is the first time I have used them and I concluded that they are the best things going. The front add-on armor panels were dry brushed with various shades of tan and weathered accordingly. Pastels were kept to a minimum on this one and after sealing the works with Dullcote, a very thin mixture of Tamiya Dessert Yellow was airbrushed on the under carriage to represent road dust.

In conclusion, this was a cool build. I was not really up to it at first, but once I got into it, I found this to be a very enjoyable project. The conflict in the former Yugoslavia was a change for me and the research proved very interesting. The Tamiya Challenger is not quite up to their current releases standards, but is still a good kit right out of the box. There are many conversions and update sets out there for the kit so the sky is the limit for this one. Have fun!

—Nick Vanston

MMiR RECCE

Tamiya Challenger 1 Mk. 3. Kit number 35154. Suggested retail price $32.00.
Accurate Armour Challenger 1 Extra Armour. Kit number C019. Kit graciously provided by the manufacturer. Suggested retail price £10.21.
Accurate Armour Challenger Fuel Drums. Kit number C020. Kit graciously provided by the manufacturer. Suggested retail price £6.81.
Eduard Challenger Mk. 3. Set. Kit number 35332. Kit graciously provided by the manufacturer. Suggested retail price $22.99.

References

Challenger 1 & 2, Spearhead of the British Royal Armored Corps by Walter Böhm and Peter Siebert, Mini Color Series 7505, Concord Publications Co., 2000. ISBN 962-361-670-8. By far, the best visual reference for operational European Challengers. Lots and lots of photos, including many of the add-on armor package and the external fuel tanks. Includes great color plates, too.

Sprucing up an old French Cow

Bringing the Heller/Gunze Sangyo SOMUA S35 kit up to Specs

During World War I the French Cavalry had shown little or no interest in armored vehicles, just their horses. However, after the war they decided to change their minds and in 1922 laid out a requirement for a light tracked vehicle with a three-man crew mounting a light gun and a machine gun. This program was called the Autos-mitrailleuse de Cavalerie or motorized machine gun for the cavalry. From this effort the Hotchkiss H35 and H39 were developed, plus the SOMUA S35.

By 1934 the requirements had evolved into a tank weighing 13 tons and armed with a 25mm or 47mm gun mounted in the Puteaux APX 1 type turret. Like most French programs, it seemed the Army had already been in discussions with the Société d'Outillage Mécanique et d'Usinage d'Artillerie (S.O.M.U.A.) who had the inside track to this program. S.O.M.U.A. had already begun work on the new tank before the specifications had even been issued. S.O.M.U.A. started working on a prototype in November 1934 and testing began in the spring of 1935.

The tank had risen in weight to 17 tons by now and had a very unusual construction. This is important to understand when building a model of the Somua. The bottom of the hull was cast iron with right and left halves bolted together on the inside. The hull top was also in cast iron, in two pieces, with a front piece for the fighting compartment and the rear piece covering the engine. These were also bolted together on the inside. The top and bottom hull castings were bolted to each other on the outside. As with other French tanks at the time, the turret was cast with only an escape hatch on the right rear. This meant that for the commander to get a good view of what was going on he had to open the rear hatch and look around. The Germans identified this problem, so when they inherited a number of S35's they added a new cupola. This had a small hatch in it to allow the commander to at least stick his head out. Regardless of the ownership, the turret mounted both the 47mm main gun and a coaxial mounted 7.5mm machine gun.

An order was placed in 1936 for 50 SOMUA S35s, but production was slow. By 1940 only 416 had been sent to the Army. The SOMUA equipped the Régiments de Dragons and Régiments de Cuirassiers in the Division Légère Méchanique (DLM).

When the war with Germany started, many considered the SOMUA S35 to be the best medium tank fielded by any army. Its armor and weapons were superior to anything the Germans had, but unfortunately for the French, they were poorly deployed. Most were broken up to serve as infantry support. Another major problem for the SOMUA was that the one-man turret proved inadequate and only a few were equipped with radios.

The Germans captured a number of the SOMUA S35s from the French army and also took delivery of a few that had still been in the factory and not yet sent to the Army. The Germans used them in a number of roles throughout the war, mostly for rear area security.

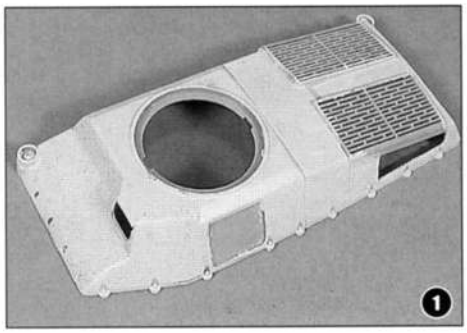
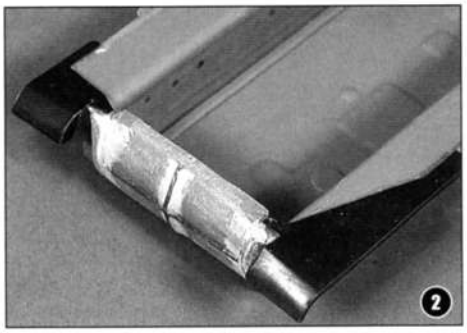
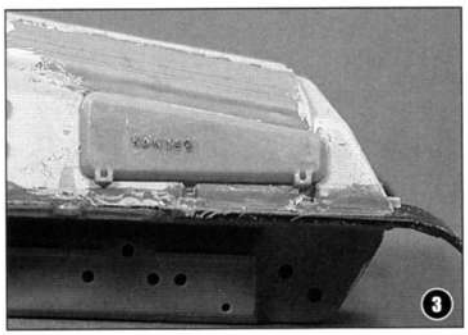
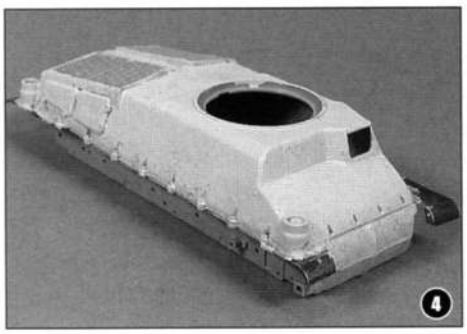
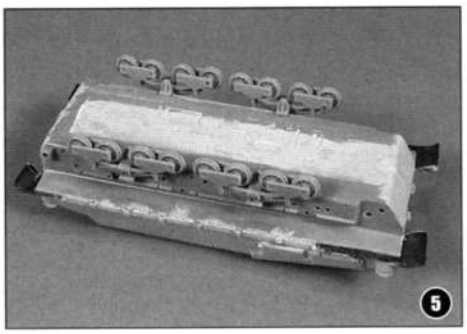
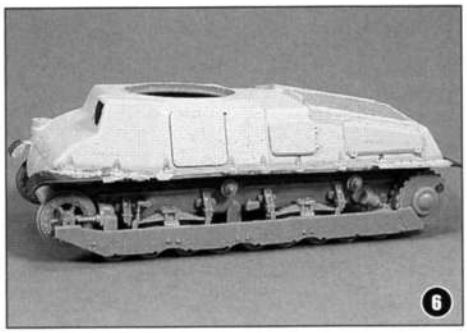
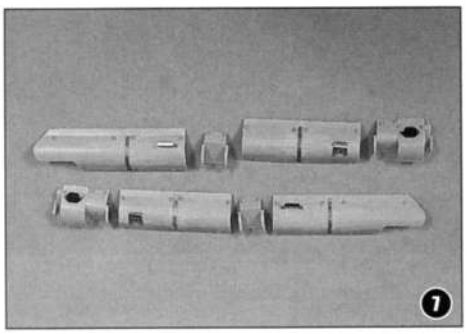
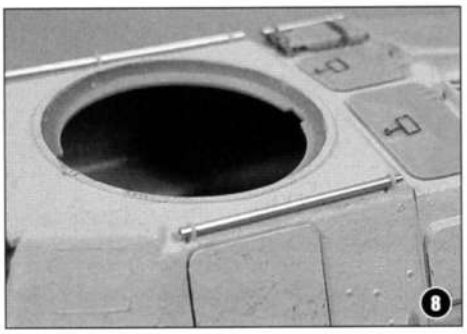
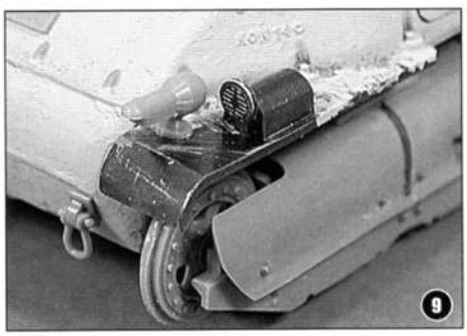
A very old kit indeed

This is one really old Heller kit, which has been around for over 30 years. There were two main problems with the kit. The tracks were really awful and the turret was not correct. When Gunze Sangyo reissued the kit they improved one thing, the tracks. Instead of the poor vinyl tracks they replaced them with white plastic individual links. However, recently Friulmodellismo came out with a new set of metal tracks for the tank and this what I used. This made buying the Gunze Sangyo kit a waste. Oh well. They did add new decals and a metal cupola. This is of the German type with hatches. The second problem, the turret, was not solved until Graham Tetley of Airdale Castings came out with a resin replacement. This turret is offered in both the original French and a modified German version. Eduard also has a brand new photo-etch set and Dobiesz has released a brass barrel for the tank, all of which I used.

The basic kit consists of five sprues in a beige color consisting of 215 pieces, including two figures. There are also four metal parts for the cupola and approximately 220 white plastic links. Last, there are three clear parts for the headlight and taillights. A nice decal sheet is included, as is a detailed instruction sheet in Japanese with some English.

Planning the attack

Before beginning this project, I went through the instructions and noted all the items for replacement with Eduard photo-etch. I then decided to start on the hull, since that is where the first modifications would need to be done. The hull bottom is made up of five pieces and there was a lot of warping in my example, plus just plain bad fit. The kit is missing the seams that run down the center of the bottom hull. Remember those cast iron halves? The seam in the front consists of a weld seam down the front and a very small one running horizontally. On the rear, the seam where the castings go together is also missing. To duplicate these seams, I first glued on thin solder wire to the front and back to simulate the weld seams. I then filled around the solder wire with putty and sanded them down. These seams are not very pronounced.

1. The hull is supposed to be made of cast iron, but the plastic is too smooth. I painted on Mr. Surfacer 500 and, taking an old paintbrush, stippled it to get a rougher surface. 2. The fenders were replaced with photo-etch options. Also notice the seam of solder wire on the front. The kit did not include these seams, or the ones on the rear of the hull. 3. Casting numbers were added at two places on the hull. One was already provided. The numbers are from a KMC casting numbers set, which were super glued on. 4. The hull was very difficult to get together. There was serious warping, plus just plain bad fit. 5. The basic suspension, consisting of four bogies, is now glued on. The mount points are not well defined, so you need to take care to get them straight. 6. There is both an outer and inner skirt that needs to be glued to the bogie sides for strength. 7. The side skirts were upgraded with photo-etch parts, plus conical bolts replacing the small molded-on ones. 8. The rails on both sides were made from hollow brass tubing, since the original ones were also hollow. Grandt Line lifting rings were used to mount the rails. In hindsight, I probably should have used smaller diameter tubing. 9. The front left fender has both kit and photo-etch parts. The siren was glued onto a piece of plastic. The armored visors from the kit can be seen. Later, I replaced them with scratch built parts that I thought were more realistic looking. 10. The storage boxes required a lot of rework to get them up

Major work here on the hull and suspension

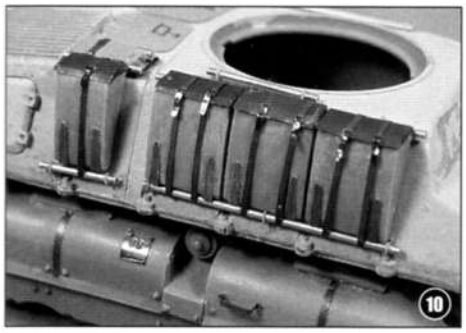
The hull bottom pieces were then glued together. The four fenders were removed and replacements from Eduard were glued on. The hull top was then glued on with a lot of difficulty, since there were serious warps here, too. There are several places where hull casting numbers are needed. I used a KMC tank construction number set to put two more sets of numbers on, one was already provided on the model. There was a lot of filling required and cleaning up of seams. The hull is supposed to be cast but the molding is very smooth. To rough up the surface, I used Mr. Surfacer 500, applied using an old brush, stippling the surface to roughen it up a little. This included all the main hatches, which were also cast iron. I thought the two hatches on the top rear of the turret were not cast, but later learned they are. Unfortunately, I did not get a chance to visit the Aberdeen S35 until after I finished the model.

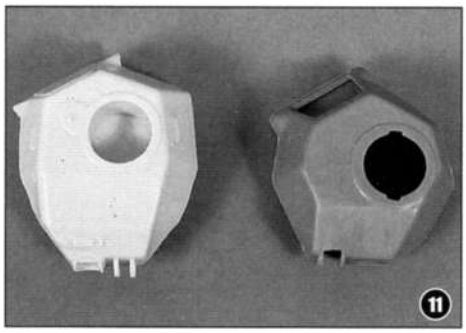
The suspension parts are at least half the kit and, unfortunately, when complete most of them are covered. I first assembled the four bogie wheel sets and glued them on the hull bottom. There is a rear roadwheel, which was also assembled and glued on. There are skirts, parts 14 and 15, which need to be glued between the bogies and the hull. I then attached all the pieces that go above the bogies, like the return rollers and supports. The drive sprockets were then assembled. If you have the Gunze Sangyo kit, like I did, there is an unnumbered piece shown in the instructions. This is supposed to be glued between parts 65 and 66. This is a white spacer for the Gunze Sangyo individual track links. If you use their individual track links, you will need this piece to open up the drive sprocket enough to accept the links. If you are using the Friulmodellismo tracks, you don't need this part. Lastly, the outside brace, parts 2 and 3, were glued on, along with the idlers. One word of warning. When I test fit my tracks before painting, they just barely passed between the hull and the drive sprocket. After painting, it was almost impossible to get them through. It would be a good idea to remove some of the upper section of the sponson before painting to avoid this problem.

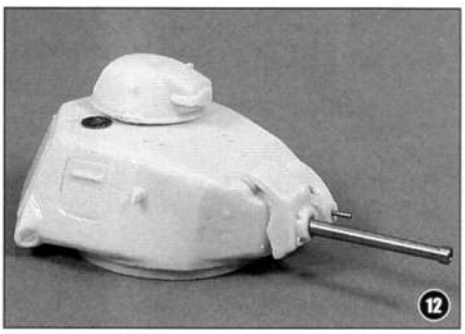
The side skirts were cleaned up and all the photo-etch pieces were glued on. There are a series of large conical bolt heads on the kit parts, which are not large enough. I therefore used some ModelKasten conical bolt heads to replace them. Now for the difficult part. Getting the skirts on is not easy. I tried two different ways and neither worked very well. On one side, I first glued part 23 on. I then glued on all the other pieces, one at a time. The problem is parts 6, 7 and 107, 108 glue beneath the other pieces. On the other side, I glued all the pieces together first, before mounting. When I tried to attach the completed piece, there was still a lot of difficulty getting them to fit right.

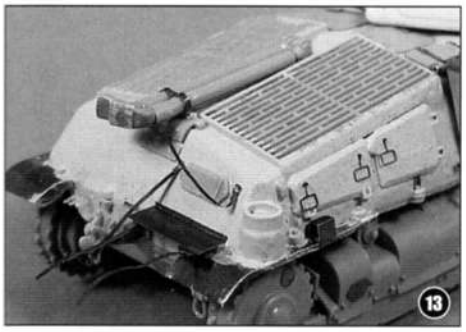
Something easy, individual track links

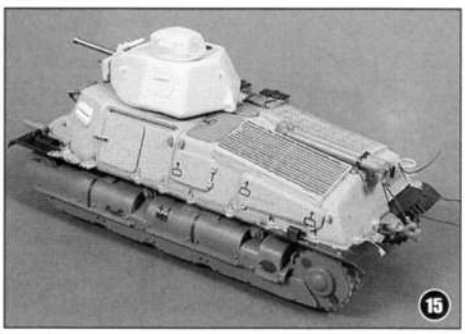
I never thought I would look forward to putting individual track links together, but this kit changed that. I have found the fastest way to assemble the wire type Friulmodellismo track links is to cut the wire into the correct length first. I then took a pair of pliers and stuck the wire through the links. These are fairly delicate tracks and the wire actually goes outside the inner part of the link. After I completed a section, I put a small drop of super glue on the links to keep the wire from failing out. I assembled enough links for each side, but left them off

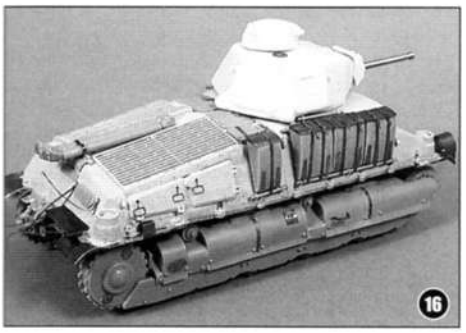


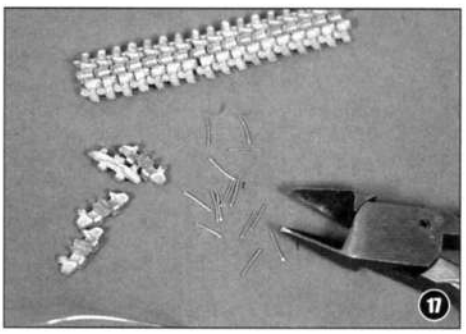


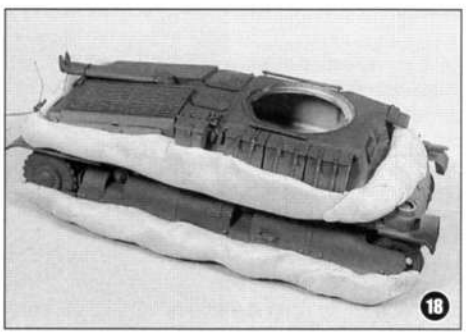












to speed. All the straps were removed and new tops and straps from the photo-etch set were added. 11. Anyone else see anything wrong here? You can plainly see the problem with the kit turret. 12. Although I had the option of either the kit or Airdale's barrel, I happened to have this Dobiesz brass barrel. Be sure to check the length, it should stick out 22 mm. 13. The exhaust ends were too narrow for me to hollow out, so I wrapped a piece of thin sheet metal around them and filled in. The platform for the tarp was from the photo-etch set. I left the tarp off until after painting. 14. I used Tamiya Epoxy Putty to make a tarp by rolling it out and cutting out a rectangle, then finally rolling it up. 15. To get the turret to sit all the way down I cut off the bottom plug, plus sanded down the portion that goes into the turret ring. 16. Almost ready for painting. The flag port on top of the turret belongs on both the German and French versions, although the Eduard instructions say it is for the German one only. There really is not a lot of original plastic left at this stage. 17. I found it much faster to assemble the Friulmodellismo tracks by first cutting the wire into short lengths. If you make them just a little short, you can push them into the links so they will not poke out. Be sure to put a drop of super glue on them to keep the pins from falling out. 18. Good old Play-Doh. I used it to mark off pre painted areas for the camouflage pattern.

until after painting was complete. An odd thing about the Friulmodellismo instructions is that they keep stating that the set includes a right and left set of tracks, but this just ain't so. I have heard that some of their kits do include both sides, but so far I have not found any.

Giving the old sow a new upper body

I now started to tackle the upper hull detail. I started with the rails that are used for carrying stowage. These are actually hollow tubes, so I used hollow brass tubing and Grandt Line lift rings for mounting. I drilled out holes in the hull and glued the lift rings in. Then, using a miter box, I cut the tubing into the correct lengths and glued them on. In hindsight, I probably should have used smaller diameter tubing.

The tow hooks and mounts were glued on, along with the large tow hook on the rear. The two clear plastic taillights were also added. I drilled out the one on the left, since that one was going to get a red MV lens. The right one is just a round piece but fortunately, Eduard has a face for it. For the left front fender, I used the photo-etch parts to make the siren and housing, but used the kit marker lamp. The right front fender was a little harder. Since the fender is photo-etch, there are no good points to attach the main headlight. The kit headlight is a totally clear piece, but I really didn't want to go that way so I substituted a headlight from my spares box. I used a piece of solder wire to hook the light up and this also made it a little easier to glue. I left the photo-etch screen off the front until after painting, so I could install an MV lens.

The side stowage boxes were assembled and the straps were all removed. Photo-etch parts 38 are hooks that go underneath them and hook to the top bar. I did find these in some photos, so I used them. Next, the photo-etch straps, 37, go over the top and bottom bars, which I buckled on.

The exhausts were then cleaned up and glued on. The two exhausts were too narrow to hollow out, so I took some thin sheet metal and formed new ones around the cut down exhaust. I then filled and sanded down the pieces so they looked like one piece.

The rear platform was made out of the photo-etch parts, but I left off the canvas roll until after painting was complete. The kit includes a rolled tarp to go on this platform, but I chose to make a new one out of Tamiya Epoxy Putty. I first rolled out the putty on wax paper with a printer's roller and I used cooking oil to keep it from sticking to the paper. I then cut the putty into a rectangular shape and rolled it. After it was dry, I painted it with acrylic paints.

Replacing the old with the new

As mentioned earlier, the turret for the Heller/Gunze Sangyo is totally off. Currently your only solution is to either scratch build a new turret, or use the Airdale Castings replacement. Steve Zaloga wrote an excellent article in a *Military Modelling* magazine a few years ago describing how to scratch build this turret. This was the route I thought I was going to have to take, until the Airdale item was released. Graham Tetley, who made the master for the turret, said the S35 at Bovington was the primary source of the dimensions He also used the scale drawings found in the TankoMaster publication referenced below. The casting is very good, but there are a few air holes, which need to be filled. I also found it necessary to saw off the bottom pour plug and sand down the lower portion that sits in the turret ring. This got the turret to sit all the way down. Michael Dobiesz

The MV lens in the headlight was added after painting and weathering was complete. The screen was then glued on last.

Above left: Where are we, Monsieur? The map is actually a campaign map of France I downloaded from the Internet and printed. The two figures are from the French company DES. They make several nice pre-WWII French tanker figures. The tarp on the rear was added after it was painted and weathered.

produces a turned brass barrel for the S35, so I used it instead of the Airdale or the kit barrel. The only thing to watch for is when putting the barrel into the mantlet, be sure to measure how much sticks out. It should be about 22mm. A very small hollow brass tube was used for the coaxial machine gun.

Painting the horse

The decals, which only come with the Gunze Sangyo kit, give you the option of two French vehicles. Number 93 from the 18th Dragoons and number 83 from the 29th Dragoons. Undoubtedly, Gunze was influenced by the book by Jean Restayn, which has a beautiful color plate on both vehicles. I decided to paint my model based on the 18th Dragoons vehicle. I liked the cool Regimental symbol, which is a hippogriff placed within a white ace of clubs. What is a hippogriff, you ask? Well, it looks like a cross between a flying horse and Big Bird (Harry Potter fans need not ask).

Before painting, I first washed everything in warm soapy water. I then sprayed the entire tank with Tamiya XF-1, flat black. I then lightly sprayed the center and lower hull sections with Tamiya XF-5, flat green. The turret was painted with XF-64, red brown at the same time. When everything was dry, I took Play-Doh and formed bands covering the green on the chassis and the brown on the turret. Play-Doh is great as a mask since it does not damage anything underneath it because it does not have any oil in it to stain the paint. The only trick is paint as soon as you get it on since it dries fairly fast and shrinks. The other option, which I have heard works well, is Silly Putty. I then sprayed the chassis with the red brown and turret top with Tamiya XF-59, desert yellow. I then took a Gundam black paint marker and outlined the camouflage pattern. I used Vallejo paints to paint the straps on the side boxes and rear. Since all the roadwheels and return rollers are all metal, I did not have to do any painting there.

I then sprayed the whole vehicle with Tamiya clear gloss, X-22. I went over the areas for the decals with a second coat. I put the decals on and then gave them a couple of coats of Solvaset. For the license plates, I first put on the black background and then put Solvaset on them. Once dry, I put the numbers on. The correct numbers for good 'ol number 93 are 67252, with a French tricolor to the left. After everything was dry, I sprayed the model with Polly Scale clear satin to seal the decals and give everything a slight shine. A wash of very thin black oil paint was then applied to the tank. I dry brushed the tank with a mixture of titanium white, sap green, and burnt umber oil paint. I also sprayed the lower portion of the tank with Polly Scale dirt.

MV lenses were then glued into the headlight, clear L 166 and taillight, red LS 410. The screen for the headlight had been left on its photo-etch fret and painted there. It was now cut off and glued on after the lens was glued in.

The tracks were first painted with a light coat of rust paint, then given several washes of black/burnt umber oil paint. When dry, they were rubbed with a Scotch-Brite pad to bring out their natural metallic shine. The tracks were then mounted on the tank by putting in the last piece of wire.

Adding figures and a base

For figures, I used two from the French company DES. They produce a number of decent figures of French tankers from the late 30's. The figures were cleaned up and sprayed with Tamiya flesh. I then painted the faces and hands with oil paints. The uniforms were painted with Vallejo paints and then dry brushed with oils. The map the officer is holding is one I downloaded off the Internet and printed.

My conclusions

This kit quickly became a labor of love because of the many problems. I don't think the Heller kit builds into a reasonable model out-of-the box. The Gunze Sanyo release has some nice features, but again, probably not necessary if you get the Friulmodellismo tracks. The Airdale Casting's turret is an absolute requirement to make this kit into an accurate model. The Heller kit is showing its age because of the poor fit of the parts, especially within the hull. I now know why I have read so many negative comments about this and other Heller kits concerning the hull. Still, with the improvements now available, it does build into a great little model. Graham Tetley told me he is thinking about doing a more accurate upper hull, which means there would be almost none of the original kit plastic left!

—Jim Hensley

MMiR RECCE

Gunze Sangyo SOMUA S35. Kit number G-797. Suggested retail price around $30.00. Kit obtained through Hobby Link Japan, but may now be difficult to obtain. However, the basic S35 kit is still listed in the Squadron Mail Order catalog.

Friulmodellismo SOMUA tracks. Kit number ATL-67. Kit graciously supplied by Chesapeake Model Designs. Suggested retail price $27.50.

Eduard SOMUA S35 photo-etch. Kit number 35 313. Kit graciously supplied by the manufacturer. Suggested retail price $19.96.

Airdale Castings SOMUA S35 Turret. Kit number AD-01. Kit graciously supplied by the manufacturer. Suggested retail price $17.99.

DES French tank crewman and officer. Kit numbers 35209F and 35210F. Suggested retail price $10.95 each.

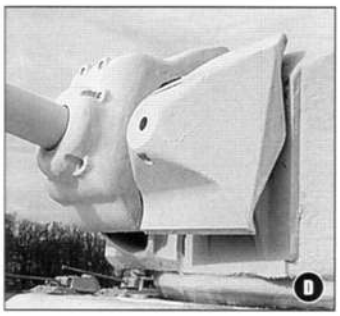
References

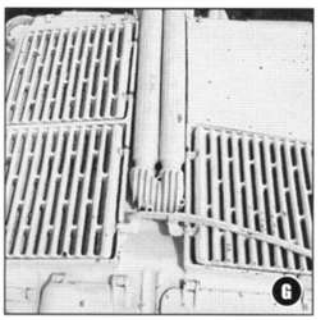
S35, Tankomaster, Issue 1/2000 Moscow, Russia. Outstanding article on the S35, including interior photographs and drawings. Unfortunately, all in Russian.

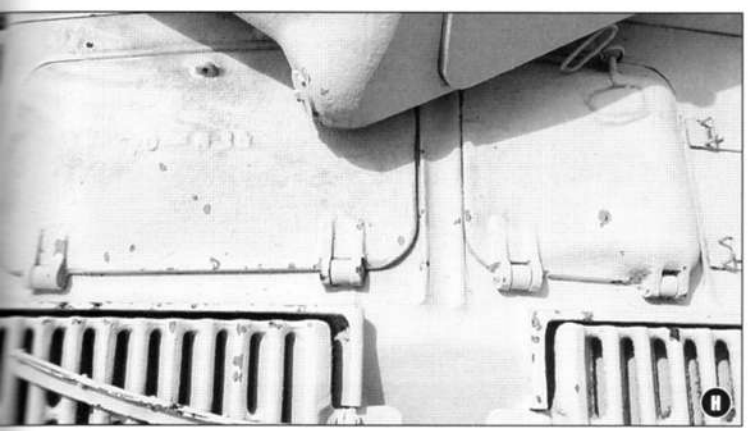
Bingham, James MAJ. *Chars Hotchkiss, H35, H39, and Somua S35*, Profile AFV Weapons Issue 36, Profile Publications, Ltd. Windsor, UK. 1971. Old, but good information.

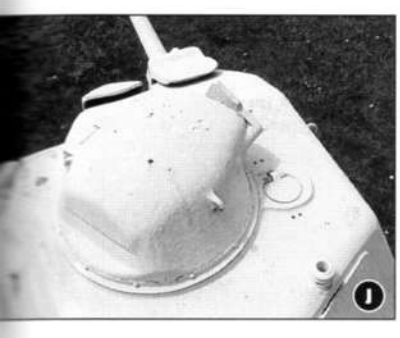
Restayn, Jean. *Tanks of World War Two*, Histoire & Collections, Paris France, 1996 ISBN: 2 908 182 37 6. A great source of paintings of all major tanks of World War Two.

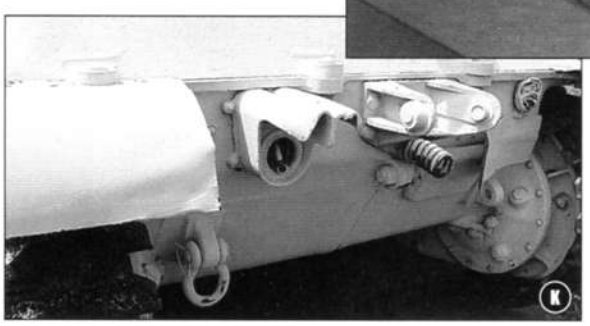
A. This is a S35 currently at the United States Ordnance Museum at Aberdeen, Maryland. It has a long but not unusual history for an S35. The Germans first captured it from the French. It was then sent to Italy for evaluation where the Americans liberated it from those bad old Fascists. It was then sent to Aberdeen where it has been rusting since the war. B. A good front-end view showing the seams found on the front that the kit did not have. C. Most of the hardware on the rear is missing but you can still see the two taillights and the base for the large tow hook. D The coaxial machine gun mantlet is clearly seen here along with the main 47mm barrel. E. The right rear corner shows the old unused antenna base plus some of the casting numbers. F. The left rear showing the drive sprocket and one of the return rollers. G. A top view of the rear deck showing the grillwork and exhaust pipes. H. These two hatches behind the turret are also of cast iron. I.











This S35 is currently at The Tank Museum at Bovington, UK. It is completely restored except that it is not a runner. J. Back to the Aberdeen vehicle. This is an original cupola without the German modification of a small hatch. The small circular hatch to the right of the cupola is the flag or pendent port. K. Details of the rear are clearly visible here, including the remains of both taillights.

Little big man

The big little Verlinden M3A1 Stuart

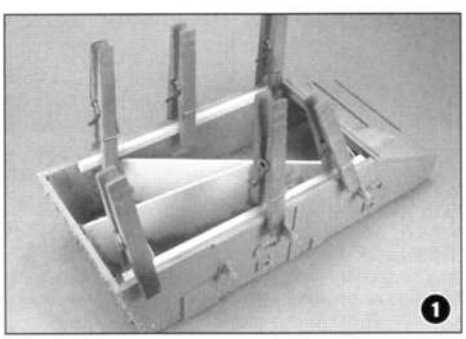
I am not going to go into a lengthy history of the Stuart tank as there are many accounts of it already published. With that said, I will say... when compared with the earlier M3, the M3A1 incorporated a new power traverse for the turret, along with recently acquired gyro stabilization for the 37mm main gun. The crew could now rotate with the turret in a new turret basket and the cupola was eliminated in favor of two hatches and two periscopes.

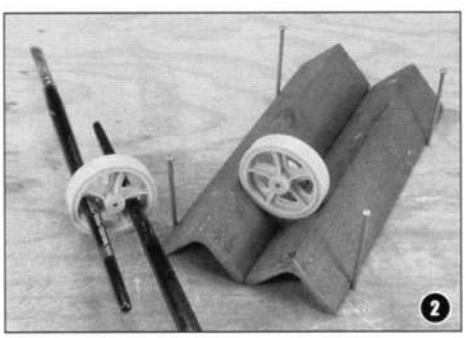
The fixed sponson mounted machine guns were eliminated, the tank's vertical surfaces were now welded instead of riveted and an auxiliary generator was added.

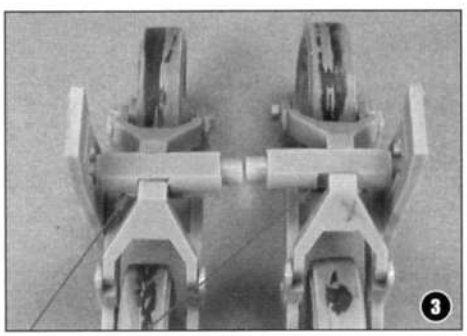
The M3A1 entered production in May of 1942 and ended in February of 1943. A total of 4,621 were built and 211 M3A1's were fitted with diesel engines, the rest were powered with gasoline.

The Verlinden 1/15th scale M3A1 Stuart has been around for some time now. I believe it was introduced back in 1994. If anyone is interested, it is listed in their recent catalog. With all the hoopla going on or near this scale, there may be some interest in this kit once again. It represents the gasoline powered, welded hull version of the M3A1. However, I could not find any battle photos of the sharp angled M3 rear hull overhang on a welded hull gasoline powered M3A1 such as this kit portrays, at least not in my limited references. The Hunnicutt book on the Stuart does have a drawing of a welded hull M3A1 with the sharp angled rear hull overhang. This kit may be a pilot model, a late production M3 or very early production M3A1.

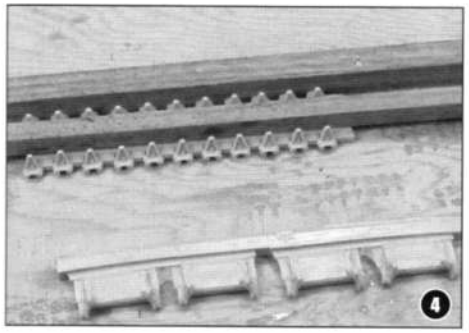
The kit parts are up to Verlinden's usual excellent casting quality. These parts are quite large and will churn up a good deal of dust while being separated from their casting blocks. Please dress appropriately, use adequate ventilation and do not breathe! The track links are individual resin bits

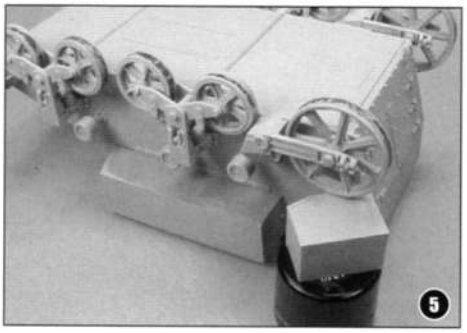


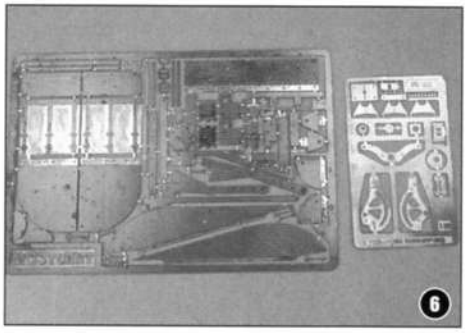


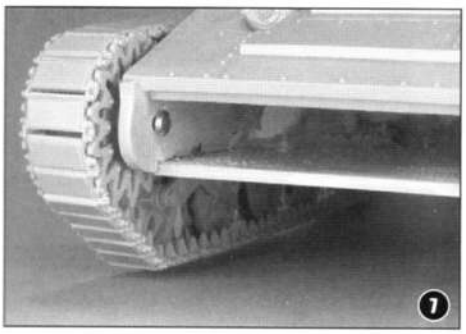


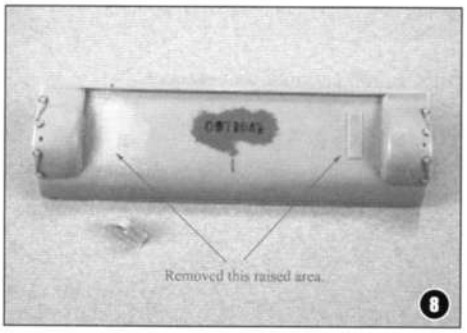
1. Bracing was added to the inside of the hull, along with an extra glue edge at the top of the sides. 2. Two of my primitive alignment jigs can be seen here. 3. The alignment of the bogie truck cross shafts will need to be modified just a touch. Some did not need it.

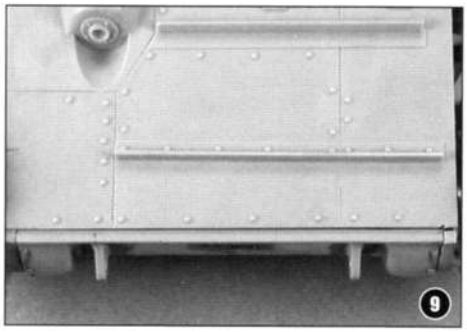


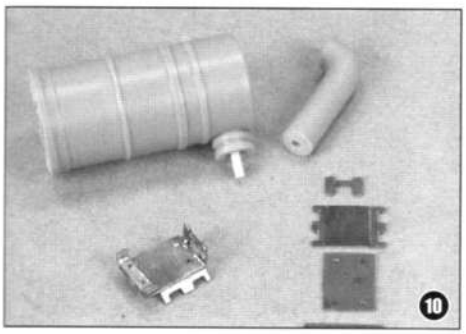


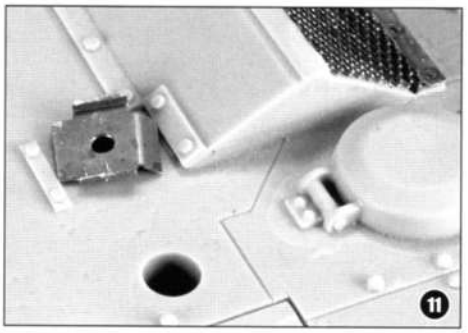


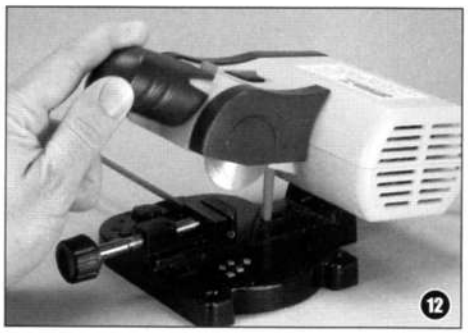


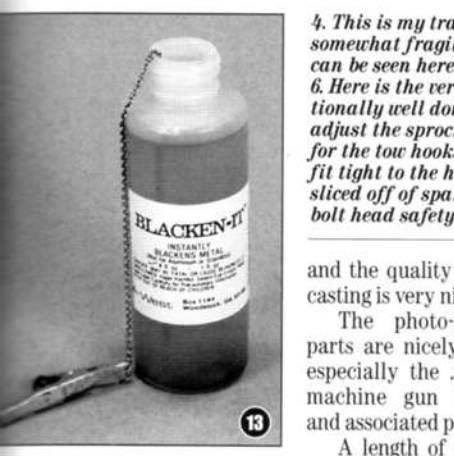












4. This is my track-gluing jig. The track links were very nice, but somewhat fragile once put together 5. One of my alignment jigs can be seen here. A few of these are needed throughout the build. 6. Here is the very nice photo-etched set. The cal. .30 set is exceptionally well done. 7. I drilled and slotted the hull so I could adjust the sprocket as I built the tracks. 8. The mounting pads for the tow hooks should be removed in order to get the parts to fit tight to the hull without a gap. I added casting numbers sliced off of spare sprue from other kits. I also added final drive bolt head safety wire. 9. I felt the forward most edge of the glacis had too wide of an edge. I added a styrene strip to bring out the glacis to meet the edge of the lower hull. From photos I have seen, some were flush and some had a small edge. 10. Here are the parts that make up the air cleaners. I soldered the photo-etched parts together for added strength. 11. I don't know what happened here. The antenna mount is way undersize. I soldered a piece of brass to it and bent it to shape. 12. A mini chop saw was used to cut thin pieces off of square brass tube for my tie-down buckles. The kit only comes with two. 13. Blacken It was used to blacken a brass chain I stowed on the engine deck.

and the quality of the casting is very nice.

The photo-etched parts are nicely done, especially the .30 cal. machine gun mount and associated parts.

A length of copper wire is included for various grab handles and a length of plastic rod is provided for the .30 cal. tripod legs.

The instruction sheet is somewhat vague at times, but we deal with that all the time. Right? I found the Hunnicutt book on the Stuart helpful, although it would have been nice to have the real thing around to measure and photograph, or to just plain climb on!

Overall, the kit is very well engineered and easy to assemble. It scales out well to drawings in Hunnicutt's Stuart book, although the road wheels and idlers appear more like 1/16th scale. You may need to rig up some temporary jigs or fixtures to deal with the long drying time of some of the glues you use. I used Five Minute Epoxy on a good portion of this kit. The added strength is worth it, but it takes a while to set up.

Out of the box?

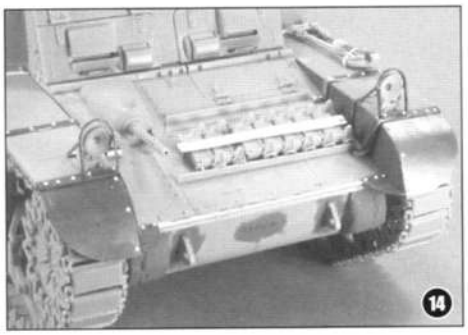
This build is kind of a hash bash, mix match with a little of this and a little of that. I added bits and pieces of brass and styrene in various areas and will mention them as I go along. The dimensions were a bit askew here and there, so some of what I did is ball parked. You will get to work with some of your larger tools with this kit and be prepared to take on some new handling techniques when painting this big-little tank.

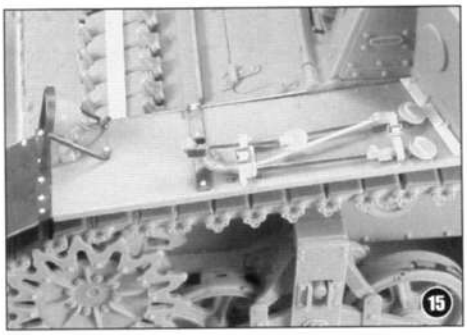
I started with the hull. The lower hull comes in five pieces and I wanted to get any seam filling taken care of before I moved on. I did leave the front lower hull plate, part number R42, off for extra detailing later on. My table saw top came in handy as I used it to clamp the various hull sides at perfect 90 degree angles while the glue dried. Once the lower hull was together, I felt that it was a bit too fragile and added styrene card stock at various angles to toughen it up.

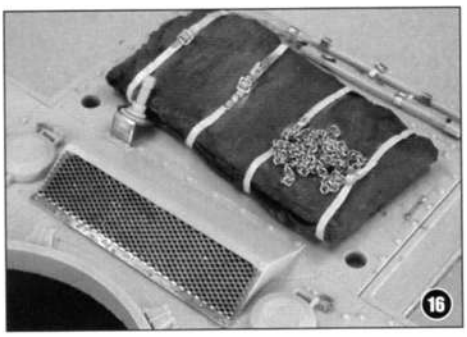
There was not much of a glue surface for the upper hull plate to attach to, so I added two styrene braces to the top edge of the hull sides. This worked out well as I ended up using the turret hole a great deal to hold this thing while painting and I am sure glad it didn't pop off.

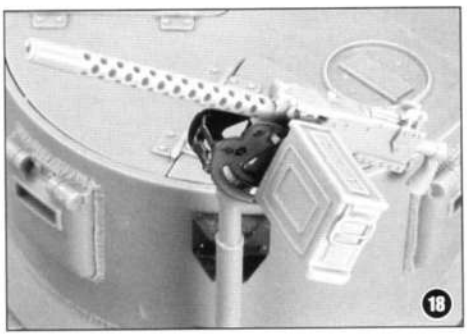
I added casting numbers to the lower front hull plate, part number R42, as well as safety wire to the final drive bolt heads. These casting numbers were shaved off of plastic sprues from the parts box and set into a fresh layer of enamel paint. I ran a paint adhesion test and found that enamel stuck well to the resin and did not need a primer. These numbers had many more layers of paint applied to fill and blend the edges. The numbers can be found in the Hunnicutt Stuart book on page 373.

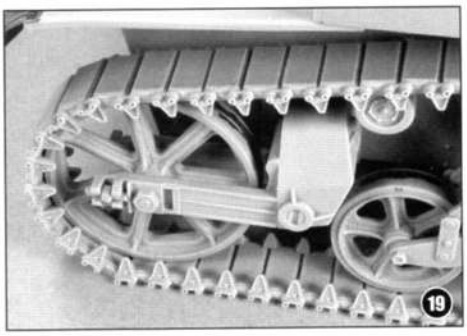
At this point, I started fitting this lower front hull plate to the glacis and lower hull. The fit here is not very good; the plate is too wide and required a good deal of shaping. Once this panel was fitted I set it aside to install later on in the build. The reason for this is that I wanted to have access to the inside of the hull so I could put some screws into the sprockets. Once I assembled the sprockets, which were a bit fiddly because of the very small glue joints, I drilled a hole in the center of the sprocket and also into the hull. I then elongated the hole in the hull to give me the option of moving the sprock-

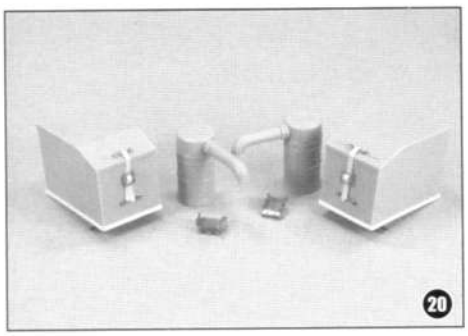


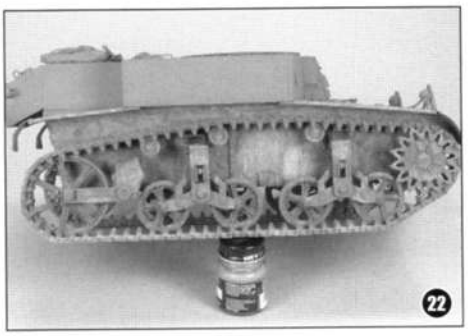












14. The photo-etched fenders had holes in them, I thought this was kind of weird so I covered them up with rivets made from a punch set. 15. I don't know what happened here, the instructions did not give dimensions for the length of the legs on the cal. .30 MG tripod. I ball parked it and made them out of brass rod instead of the plastic rod supplied in the kit. 16. Small chains were added to the armored fuel filler caps. You can see my soldered extension to the antenna mount here, as well as my tarp made of tissue paper and white glue. 17. The completed rear hull with all the tools and brackets in place. 18. That gorgeous VP .30 cal. HUBBA-HUBBA! 19. The rear idler and assembled track links here. 20. I set aside the rear toolboxes until after the base coat of paint. This made it easier to paint the backside of the boxes and the depression in the hull. 21. Here is an overall view with all the goodies added. 22. I put a mix of fine sandblast sand, baking soda, Durham's Water Putty, burnt umber craft store acrylic paint and dirt over the suspension and hull in places that get dirty. This was put on after a base coat of olive drab and before any weathering.

et back and forth to whatever track length I ended up with. I did not want a problem with a half link when I went to install the tracks. In the end, it worked out well because it also held the sprocket in place while I added the links. Verlinden provides a shallow adjustable slot that you glue the sprocket into. This is fine, but also permanent.

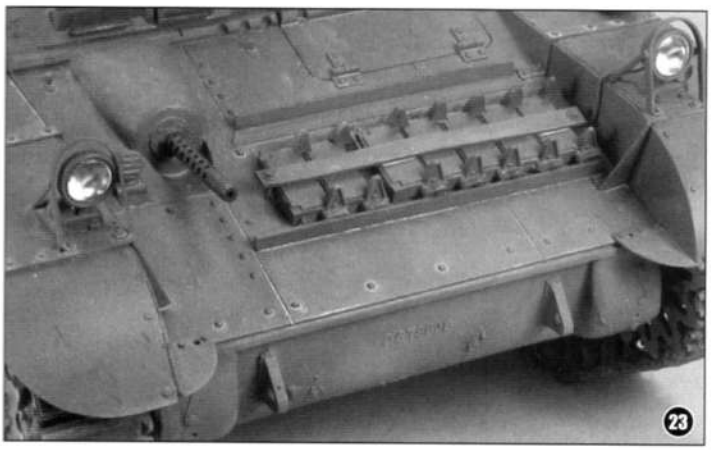
I moved on to the suspension next. The road wheels and idlers are each cast in two parts with each part in one-sided castings. This was not too bad as the over pours were not excessive. The problem I had, once they were assembled, is that they were too narrow for the track. They are about .250" wide and the inside of the track between the guides is .480." This leaves a rather large gap between the sides of the wheels and the outer track guides. I was not about to make up spacers to widen them out and have to match up the holes in the spokes.

I used a couple different jigs to align the wheel spokes while they were glued together. One is a simple V block (a piece of angle iron) and the other was a paintbrush handle to shove into the spokes. The bogie trucks themselves had a couple of alignment issues, but were not too hard deal with. A couple of makeshift jigs helped with this assembly.

Next, I assembled the tracks. I knew it was going to be hard to handle this big thing and with my big fingers, I did not want any small details getting broken off. The track links are individual links made of resin. The detail is very nice but they are quite fragile, the only contact area for glue is a small square at the outside edge of each block. After cleaning them up, which was not too bad, I built them in sections. The lower section I built as one long piece and the idlers I built piece by piece. I used a divider to measure between each return roller and the links around the sprockets were done last to aid in getting a nice tight fit. One thing strange about these track links is that the kit gives you special links to go around the sprockets. These special links are a bit wider; (from front to back) to fill a gap between each one as it goes around the sprocket. There ends up being a considerable gap between each link if you use the same links as the rest of the track. I suppose it is not that noticeable when finished. Once the tracks are on the model it will have to be handled and moved with care.

Well, back to the front hull. It is my opinion that the very front edge of this kit, where the glacis meets the lower front hull plate, appears to have too wide of an edge. From photos I have seen, the real tank has this joint either flush or just a small bit back on the glacis. I added a small strip of styrene stock to bring the glacis edge closer to the front hull plate's edge. This would mean, of course, that you would also have to move the front most row of rivets closer to the front edge of the glacis. I felt I made the front most edge look better than it was and that was all I cared to do with this particular kit.

The topside details were added next. I kept the rear toolboxes off until after the base coat of paint was put on. This allowed me to paint behind them better and also helped to add extra detail. I added a prominent mounting strip that was missing around the lower edge of each box with styrene strip. The rear fenders do not have much holding them on so, I was hesitant to let the weight of the boxes rest completely on them. A hole was drilled in the backside of each box and into the hull side, which allowed me to install a piece of styrene rod as a support. This helped to take a little weight off the fenders. Kit supplied photo-etched buckles were used with masking tape for straps. This is the wrong configuration for the buckle and strap on these boxes, but it is close. There should be another loop at the bottom of each box. The photo-etched set only comes with two buckles. I made my own with an inexpensive chop saw and a length of .125"



23. My casting numbers can be seen here, along with my spare track link rack. The headlights are MV Lenses, number L403. 24. Verlinden's beautiful cal. .30 mg can be seen here, along with my star markings for C Company of the 193rd Tank Battalion. 25. The sharp angled rear hull overhang can be seen here. The welded hull M3A1 should have a rounded rear overhang. This may be a pilot or late production M3/early production M3A1. There are not enough photo-etched footman loops in the kit to do the engine deck and the pioneer tools and .30 cal. tripod stowage. I made up straps from masking tape and buckles from square brass tube. Be sure and check actual photos for the placement of the pioneer tools as the instructions are not correct on some of them. 26. Here is a good shot of the fragile air cleaner brackets. The very nice photo-etched engine screen is settin' purdy in the background.

square brass tube that I cut into very thin pieces.

The taillights and photo-etched brackets were added to the rear hull overhang and taillight wiring was added with .032" solder wire.

If you use the photo-etched footman loops for the pioneer tools, you will not have enough for the engine deck. I used up the kit-supplied loops on the tools and added a tarp made of tissue paper and white glue to hide where they would go on the engine deck. I wanted to put some sort of stowage on this thing anyway. I believe there are a total of ten loops in the photo-etched set and I could have used ten to twelve more. I did add two at each side of the tarp to give the impression that they were also underneath. Just for grins, I set a length of chain on top of the tarp. This was a brass chain dipped in "Blacken It." I gave it a rust wash and dry brushing and set it in place. Very small chains were also added to the fuel filler caps.

I don't know what the deal was with the antenna mount on the rear deck. It was very small and did not fit in its position. I soldered a piece of brass to it and bent it to the proper angle. The antenna base itself did not look familiar.

Check the pioneer tool mounts out, as the instruction sheet has you put a couple in the wrong place. The box art is a better reference. Some of these mounts were ill shaped and a bit oversize, in my humble opinion.

The front fender inner panels are photo-etched and were a bit troublesome. There are no alignment points, so you just dry fit them around until you get them where you want. I suggest you pay attention to the area of these inner photo-etched panels at the rear of the glacis near the bottom of the hatches. This panel may stick up above the line of the fender and if you can deal with this before the panel is glued on you may want to trim some of it down. I did not and now wish I did. I bent the rounded part of the front fenders around a paint bottle and it gave me a pretty good shape to work with. I ended up with some of the fender brackets setting too high off the fenders. I cut them at the top curve and the width of the saw cut was enough. I soldered them back together.

There are a couple things that are missing with the front fenders. There is a mounting strip where the fender meets the glacis. This could be added but there would need to be modifications to the height of the fender braces when doing this. At the rear of the resin fender there needs to be a strip added. I added this with styrene stock and rivet heads from my punch set.

All of the photo-etched fender brackets had holes where the rivets would go. This looks kind of weird and I chose to cover them with rivet heads. From what it looks like to me, the forward most fender brace is not included in this kit. This is another addition that would make the model more complete.

The rear braces for the headlight guards appeared too long, so I cut them a bit shorter and added rivets with my punch set. The headlights themselves were drilled out to accept MV Lenses; .300" would fit best; the largest I had on hand were .281," which are 9/32." These are MV part number L403. I also added headlight wiring but forgot to add the clips that hold the wiring to the hull.

A grab handle was added to the glacis plate and the right side upper hull with copper wire supplied in the kit. The siren or horn did not come with the mounting bracket, so I built one with brass flat stock. An electrical wire lead was added as well.

I saw a photo of an Australian M3A1 with spare track links on the glacis that I liked, so I made a set for this kit with styrene stock, Verlinden bolt heads and spare track links from the kit.

This is one detail that totally caught me off guard. The cal. .30 tripod mounted on the left side of the front fender is lacking assembly instruction on how long to make the legs. I cleaned up my resin parts and got my plastic kit supplied rod out and looked and looked again. The instructions do not tell you how long to make the legs! This tripod is folded and stowed and I had no idea how long to make the legs. I ended up eye-balling it and made up more footman loops, buckles and straps to hold it down to the fender. The footman loops were made with brass wire and a punch with a hole drilled in the end. This punch was hit at each end of the wire with a hammer over a jig. I would suggest a softer wire such as copper for this instead of brass like I used. No tow hooks are included in the kit.

I added lift loops to the rear hull overhang with .050" solder wire.

The turret

The turret went together quite well, although the cal. .30 mg mount is a bit tricky to assemble.

There are many small parts that are hard to hold while you glue them together. I tried soldering them, but without a more sophisticated soldering setup, I was not successful. The cal. .30 machine gun itself is absolutely beautiful!

You have a choice of having the hatches open or closed. I left mine closed, as I did not have any figures to put in them and the turret has no detail inside to display anyway.

All I added to the turret was a simple weld seam to the mantlet.

The paint

I knew the painting process was going to be different with this kit than with 1/35th scale kits. I have painted custom cars and custom motorcycles in the past and used what us old hot rod dinosaurs called "candy paints." Candy apple red may sound familiar to even the youngest readers. If you take a bottle of strawberry or orange soda and hold it up to the light you can see through it and see what color or object is behind the bottle, in other words, it is transparent. No, I am not going to paint my tank candy purple metal flake. Over the years I have always thought of using this technique in modeling. The key to candy/transparent paint is that you mix a small amount of color into (clear) paint, in this case gloss clear enamel. This is done very much like a wash but instead of thinner you use clear paint. You still however, have to thin the paint like you always do. The amount of clear you dilute the color with determines how transparent it becomes. This gives you the ability to give various colors different strengths or intensities. The more you apply the stronger the color becomes. This is the first time I have tried this, so what ever happens, happens. I still used basic techniques such as target washes, dry brushing, filters and what not, but my main concern was to be able to vary the larger panel colors with varying shades of earth tones using an airbrush. With this kit being so large I thought it would be a good specimen.

I started painting this kit with an overall coat of duck blind olive drab. Yes, duck blind olive drab. This is an enamel paint that comes in a gallon can by a company named Holly-Way. Hey, it was on the shelf and it is a pretty good match for early war OD. Stay with me now. At this stage, I made up a mud mix of fine sand blast sand, baking soda, Durham's Water Putty, burnt umber craft store acrylic paint and dirt. I placed this over the suspension and hull in places that get dirty. Next I applied a small amount of Model Master burnt umber and burnt sienna (about 20% color to clear). I sprayed this on the suspension in varying areas where wet mud accumulates. I also sprayed areas around the hull where dirt tracking and shadows would be. Dirt streaks were sprayed down the hull and turret sides at this time as well.

At this time I darkened the original olive drab by adding a touch of black to it and then weakened it with clear. This was sprayed around in random patterns to provide more tonal variations to the large plain hull panels.

To lighten things up I mixed Model Master faded olive drab and Dunkelgelb with clear in the same ratio and hit the highlights. Items such as the top of the turret, glacis mounted machine gun hump, top of the gun barrel and other things that you would normally highlight with dry brushing.

Next, I sprayed a lightened mix of Model Master U.S. Army gulf war sand on the suspension from the lower front, just as it would be if it were kicked up from the ground. A little bit more clear was added to weaken the color and a light dusting was sprayed over the whole hull. This is what is nice about using transparent colors; you do not run much risk of over doing it because you just keep spraying until you get the depth you want.

Scuff marks and chipped paint were put on next and this was followed by a variety of earth tone filters. I topped this all off with a buff wash to represent the very dusty conditions of the PTO.

Dry brushing was done next with Tamiya buff to show streaks and rain marks on the hull and turret sides and to give a worn in look of a well used tank. I do not know how many times I heard at contests where someone said, "I remember our tanks being full of mud and dirt, these model tanks are too clean."

I left the pioneer tools olive drab as they were usually painted this way anyway.

The taillights are not supposed to be the same on both sides but they are in almost all kits. With a little bit of fussing you could make the right one look correct.

The markings

I had no idea what to do with markings. Verlinden's box top says there are dry transfers included, but there were none in my kit (it was an E-Bay purchase). I did not have any combat photos of a M3A1 with a sharp angle rear hull overhang. After considerable thought, about 30 seconds, I decided to modify the rear hull overhang after I completed this article and mark it in U.S. Army markings of the 193rd Tank Battalion on Makin Atoll in the PTO. This is the star arrangement that C Company of the 193rd used on their turrets and I have plenty of photo evidence of this. You could convert to the rounded rear overhang early in the build without too much work and then your marking options would be wide open.

Conclusion

This was a nice build overall. The model ends up being quite heavy and with the somewhat fragile tracks, it will have to be handled with care. Shoot, it's going to sit on the shelf anyway. Right? The model assembles well and is very nicely detailed. When it is finished, it looks very much the part. You may be limited with this kit as far as the angled rear hull overhang, but it is a nice platform to perform some detail marvels, given the time. Get those glues and saws out and get to it! Enjoy!

—Barry Beaudry

MMiR RECCE

Verlinden M3A1 Stuart. Kit Number 889. Suggested retail price not available at press time.

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Stuart A history of the American Light Tank volume 1 by R.P. Hunnicutt, Presidio Press 1992. ISBN: 0-89141-462-2. This book is a must for anyone looking for history or details on the Stuart tank.

Stuart U.S. Light Tanks in action by Steve Zaloga, Squadron/Signal publications, Inc. 1979. ISBN: 0-89747-084-2. Very informative and an excellent overview of the many variants of the Stuart.

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Tank Battles of the Pacific War 1941-1945 by Steven J. Zaloga, Concord Publications Co. 1995. ISBN: 962-361-607-4.

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A peek at what's new on the figure front!

MiniMen

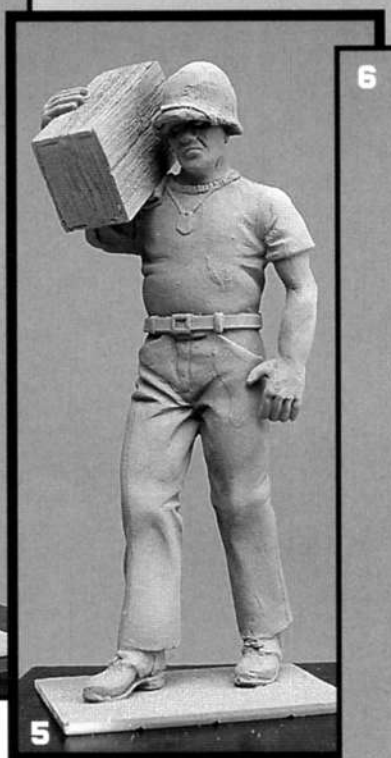
Alpha Image Inc.

It's round two for Alpha, as their release schedule continues unabated. **W35006, German SS in greatcoat with MG34 WWII (1)**, depicts a chilly looking MG34 gunner wearing the field gray greatcoat. The helmet is shown with camo cover and he wears a Balaklava around his head. The hands are covered with gray knit wool gloves. He carries the standard black leather belt and braces. The equipment carried is the MG maintenance kit, canteen, mess tin, bread bag, shovel, gas mask with gas cape and pistol. A nice feature is the stick grenade tucked the belt. The MG34 is carried in a relaxed way over the right shoulder.

Next up is **W35007, German SS Obergruppenführer WWII (2)**. This guy wears the 1942 pattern tunic and breeches both in field gray with the ever-popular black leather jackboots. The Knights Cross is worn around the neck. Pinned to the right breast pocket is the German Cross in gold. The left pocket has the Iron Cross 1st class and stitched to the top tunic buttonhole is the ribbon for the Iron Cross 2nd class. Clutched in the left hand is a pair of gloves and the right has a walking stick. The officer's field gray cap tops him off.

Coming in close behind is **W35008, German General in windjacke WWII (3)**. Our bearded general wears the cotton-unlined windjacke over his tunic, field gray officer's cap, breeches and black leather jackboots. A black leather pistol belt and pistol holster is worn. The Knights Cross is worn around his neck.

W35009, German Feldgendarmerie WWII (4), is a MP wearing the motorcycle rider's rubberized coat with the coat buttoned around the legs—a little different that we usually see them. Around his neck are the gorget plate, goggles and a gas mask container with the gas cape wrapped around. The field pocket lamp is secured to a button on the left shoulder. A black leather belt with an MP40 pouch is around his waist. He holds an MP40 in his black rubberized gloves. Olive green canvas gaiters are worn over leather ankle boots. A neat treatment of a common subject



C.G.M. Productions

This is the first sample that we have received from this small, but ambitious French company. They specialize in all items pertaining to the U.S. Marine Corps in WW2. **002C, U.S. Marine WWII (5)** depicts a Marine with a steel pot and camo cover humping a box of rations. He is further decked out in T-shirt and dungaree trousers. He wears the short brown leather boots with his trousers loose. Additional K-ration boxes are also provided.

Custom Dioramics

Second in a series (?) is **CD 4042, German Polizei #2 (6)**. This depicts a standing figure at present arms, perhaps on some kind of guard duty? He wears the standard "Jäger" uniform of a municipal policeman, with the addition of white gloves. This type of figure has become common to Custom Dios and it is neat to conceive of a figure as a diorama accessory right off the bat. Good show guys.

More along those same lines is **CD 4043, Red Cross Nurse (7)**. She wears the typical plain work dress of the 30's/40's with the nurse's white apron worn over the front. She also wears the small, rounded cap on the back of her head. She looks like she would fit into a variety of situations, but remember U.S. nurses wore pants! With very little modification she could also pass for a plain 'ol civilian, maybe even a cook?

Dragon

6156, Panzer Riders (Lorraine 1944) (8). This set is one of a new series promoting Dragon's 10th Anniversary. These items, along with

certain new kits and figure set releases, contain extra goodies. In the figure sets this is in the form of an extra sprue with stuff such as extra heads, weapons and equipment. But the big bonus inside this set is the awesome Ron Volstad calendar drawing inside. This 5 x 7 sheet will appear in each of the subsequent anniversary releases for a total of 12. Each has the month, the illustration and a miniature version of the following month's painting. Cool, cool, cool.

This is an all-new set and it is pretty nice. A little company for your new Panther A, if you will. The riders share a lot of the same get up; such as the field gray tunic and trousers, and the gaiters and ankle boots. The headgear worn is a helmet with and without camo cover and a 1943 pattern field cap. All wear the black leather suspenders and belts holding the standard German equipment, loads of ammo pouches, canteen, bread bag, shovel, mess tin and bayonets. The weapons are a range, with an MP40, K-98 and a Panzerfaust all in evidence. The seated non-com also carries the 6 x 30 type binoculars.

All in all, a highly useful set. As it is clearly based on a popular series of photos, we wonder if there will be more to come?

6157, 2nd Fallschirmjäger Division (Kirovograd, winter 1942/43) (9), is not considered part of the anniversary program, so it does not include the spiffy calendar artwork. However, it does contain a great new figure set. These four workin' paras wear the quilted reversible parka and trousers with the white side out. The helmets would also have been painted white and they all have balaklavas worn around the neck. All wear the black or brown front lacing jump style boots with black leather pistol belts and braces. These are crammed

with ammo pouches, canteens, bread bags, mess tins, MG maintenance kit and pistol. The weapons depicted are the MG42, MP40 and K-98. The rifleman totes a grenade carrying case.

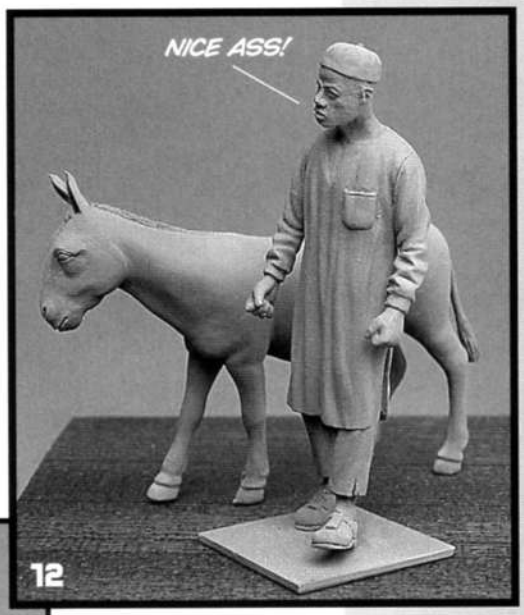
A very animated set, the MG42 gunner is particularly effective in his "belt feeding" pose.

Hornet

OK, that's it. We can't say anything else good about Hornet heads. This is simply because we have no more adjectives to use. We've used them all, you see. We guess we could throw in a few more "outstandings," a couple more "awesomes," maybe even three or four "hubba-hubbas." But after a while, it just starts to have a hollow ring to it. So the bottom line is this: stare at the pictures, cry your eyes out and when you can't cry anymore, go out and get six or seven sets of each.

First up is **HGH 16, Heads with German Army style camouflage helmet covers WWII (10)**. This is a real neat idea. This was a very different design from its SS counterpart. These covers were often worn alone and it would make for a nice bit of color for your next Wehrmacht figure.

HUH 06, 5 different heads with early type USMC M1 helmet and cover WWII (11), are just the thing for those DML Marines you've got lying around. If you have already completed the aforementioned weeping session, try not to notice the helmet liner and strap peeking out from under the helmet cover, or the soft cap worn under one of the helmets. Gulp!



Model Victoria

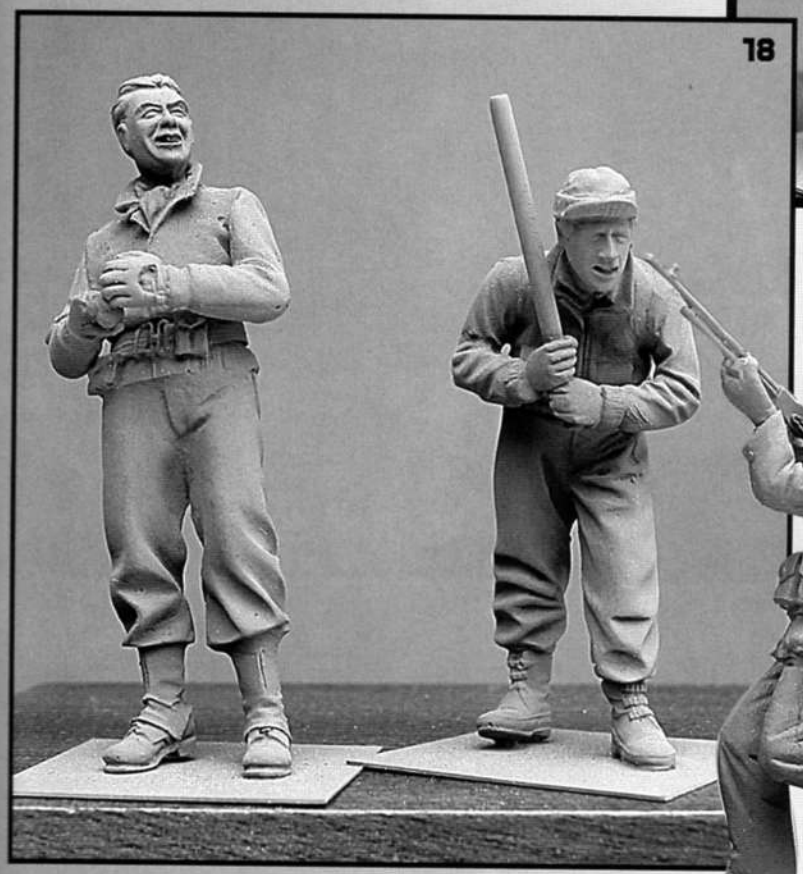
This is our first peek at MV's line of civilian figures. An interesting lot they are. First up is **4048, North African-Man with donkey (12)**. This depicts your typical looking North African gentleman in a long tunic and puhtee style cap. He also wears the typical loose trousers and sandals, which would place him anywhere from the late 1800's right through to today. The donkey is actually an Ausf. G model, which was only manufactured between July 19th and 20th, 1952 (between 6 and 10 p.m.), so bear this mind. A great set-up for any Northern Africa diorama.

4053, Man with shovel (13), is a real simple and basic sculpture. His outfit basically says, "work," and he could fit into just about any European scene from the last 75 years. The figure is very well rendered and he carries the popular Mk.5 "Shovelschlepperwagen" Painting would be easy, as he could be rendered in any combo of muted colors.

4054, Woman with children (14), shows what can happen when you don't pay your sculptor enough: you get kids with no pants. One can almost hear him telling Mom, "tell Dad to drop the freaking shovel and get me a damn pair of drawers!"

This is a very effective set and we were especially impressed with the way that the baby was sculpted as part of Mom's arm. She is dressed in a 30's/40's style country European dress, but it would be easy to alter her to fit your chosen decade.

Hey, shhh... Just between you and us, that baby isn't gonna win any beauty contests. Yikes!



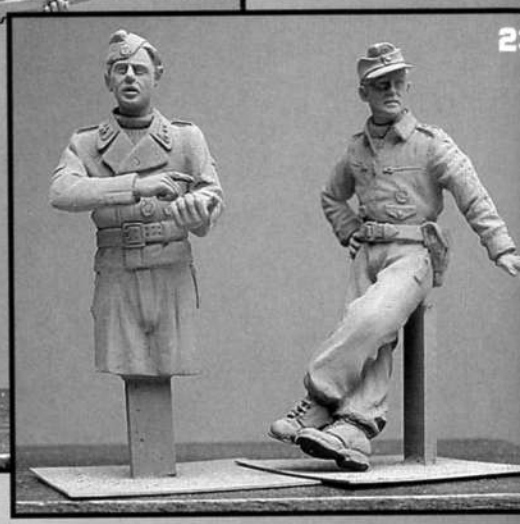
Verlinden Productions

1848, General Patton & Staff (3 Figures) (15), makes up a nice little instant vignette. The general and his aide both wear steel pots. The big man has one with three stars, while the other has netting. They both wear U.S. Air Force A2 fleece lined leather flight jackets. Patton wears his often seen black leather belt and revolver. The armed aide is toting a Thompson with the EM wool overcoat, wool trousers and four buckle overshoes. His equipment includes braces, pistol belt, pistol magazine pouch, pistol and canteen. The hand held radio is the SCR-536.

1849, Letters for Home U.S. Tankers (2 Figures) (16), is yet another "insta-scene." The first is a standing tanker wearing the winter com-b a t

trousers worn over the winter combat jacket. In his right hand he carries the M1942 armored forces helmet and he further wears a pistol belt with pistol. The seated writer has the winter combat jacket worn with the one-piece HBT suit and four buckle overshoes. A nicely rendered board is provided, complete with correspondence, for the seated figure's lap.

Here's something a little different. **1850, Observations (2 Figures) (17)**, depicts two prone figures both clothed in the reversible white/camouflage parka and trousers. One has a camo helmet cover and both have balaklavas around their necks. The pointing soldier has on a camo pair of trigger finger mittens, while his partner's are black leather. The kneeling figure has a pair of winter boots with the felt shaft and gaiters with ankle boots. The equipment carried is made up of pistol belt, shelter half, bread bag, mess tin, canteen, gas mask with gas cape, MP40 ammo pouch and pistol. Very effectively posed and rendered.



Who says figures can't have fun? **1851, Ball Game (2 Figures) (18)**, is two dudes engaged in the ancient battle of the plate. The pitcher has the winter combat jacket with a scarf around the neck, wool trousers, leggings and brown leather boots. His right hand contains the older style of soft baseball mitt (a nice touch) and it looks like he's ready to let loose a fast ball. The batter wears a knit cap, the winter combat jacket, wool trousers and four buckle overshoes.

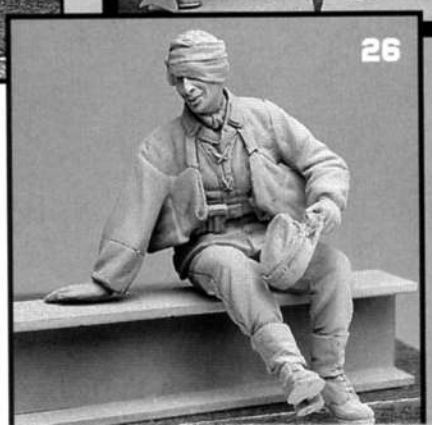
Both the expressions and the poses here are great. Hey, what about the rest of the team?

Warriors

35460, SS Grenadier Tank Rider (19). This stern looking seated fellow wears a camo helmet cover and smock. Beneath the smock is a field gray tunic and trousers, gaiters and ankle boots. His tasteful ensemble is completed with this season's black leather belt, braces, canteen, bread bag, and mess tin and gas mask. Smashing!

Warrior's awesome series of fighting Marines continues with **35463, "Hit the Beach" Pt-2, 35469 "Hit the Beach" Pt-3 and 35473 "Hit the Beach" Pt-4 (20, 21, 22)**. Let's take a look at all three sets as one. All the helmets worn have camo covers and the two-piece dungarees are worn. Everybody gets brown leather boots and three of the six wear gaiters/leggings/spats, or whatever you want to call them. 1936 model pistol belts and suspenders are seen with ammo pouches for the M1 Grand and the BAR. Also hooked on are canteens, first aid pouches, k-bars, bayonets, cartridge cases and pistol holsters. Field packs with 1910 model entrenching tools are also present. A neat touch in set 35463 is how the runner is depicted carrying ammo bandoleers for both the M1 and BAR. Excellent additions to the series–more please!

35464, Panther Crew (23), contains two dudes, the first a crewman leaning against the turret. He has acquired a leather Luftwaffe jacket and has added armor branch shoulder straps. He wears camouflage trousers and ankle boots along with the 1943 field cap. The second, half crewman (well, he's a full crewman, but just half a figure) wears the black panzer tunic and black forge cap. Both



Here Pershing, Pershing!

Wolf

And now, time for something completely different. **WAW 38, Hungarian Infantryman, WWII (28)**, is something you don't see everyday. The figure wears the familiar German pattern steel helmet. His khaki great coat is the old Austrian imperial pattern and is shown with a camouflage cape worn over it. This piece was similar to the German Zeltbahn, but could only cover the back portion of the coat. Underneath, he sports pantaloons with leather ankle boots. A leather belt with ammo pouch and a stick grenade round out the kit. His

have brown leather belts and brown leather holsters.

35467, Japanese Infantry Set #2 (24), is also part of a series and in this set both wear the M98 field service uniform and have puttees over their boots. The rifleman carries the 6.5mm Arisaka rifle with fixed bayonet. The MG carried by the second figure is the 6.5mm Type 96 machine gun with fixed bayonet. The equipment is the standard infantry pattern water bottle, gas mask, belt with ammunition pouches, pistol and small field pack. Banzai!

35470, "Brothers in Arms" (25). This bundled up trio having a drink all wear the field gray anorak with white reversible trousers and black leather winter boots. Under their helmets and around the officer's neck is a balaklava. The equipment is made up of pistol belts, ammo pouches, MG maintenance kit, pistol, bread bag, mess tin and canteen. The AG carries the spare barrel and two ammo boxes over his shoulder for the MG42. The pose of the two "buddies" (at least we hope they're just buddies!) is pulled off very well, from both a sculpting and casting point of view.

35471, SS Grenadier Seated (26). This simple, but effective sculpture depicts a wounded grenadier wearing a camo smock over a field gray tunic, field gray trousers with gaiters and ankle boots. Of interest are the leather rifle grenade launcher pouch and the rifle grenade carrying bags around his neck.

35474, Pershing Crew-U.S. Late War (27) is as timely as today's headlines (or maybe issue 30's headlines). A nice, solid tank crew composed of four half figures. Yep, that's what we need more of nowadays, kids—more tank crews. At least that's what ol' Pappy used to say. Anyway, the crew is depicted as all gone to the steel pot, instead of the armored force helmet. A pretty common sight late in the war. Two of the figures wear winter combat trousers and jackets, while the others wears the tanker's overall. The radio operator has a knit cap under his helmet and the driver has a wool toque under his. All are great looking sculptures.

WAW 39, French Tankman, WWII (29), is a very well executed single piece casting rendered in a casual pose. He wears the French M35 style helmet, brown leather coat, pistol belt and holster, with khaki trousers and shirt. The perfect companion for your next Heller kit.

WAW 40, SS officer in parka, WWII with raised leg (30), is yet another fabulous single piece casting. He wears the anorak with the large hood and his field gray winter trousers are being worn with black leather winter boots. He's topped off with a Feldmütze with the stiffener removed. He also sports the black leather braces and pistol belt with MP40 ammo pouches, although no weapon is present. The box art depicts our hero with his leg up on a tank track, but if you don't have a Panzer handy, a nifty fence section is included in the box.

All samples were provided by the various manufactures, with the exception of the Model Victoria pieces. These were submitted by Chesapeake Model Designs.

TARAWA '43
LVT2 CONVERSION

Improving and enhancing the Italeri kit with new update sets from Trakz

Part three

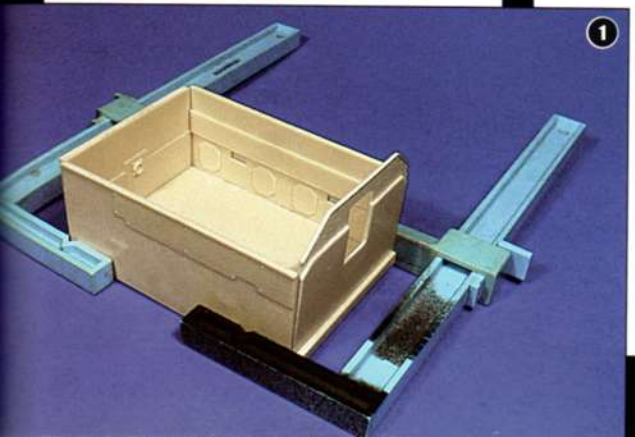
The LVT2 was America's answer to the shortcomings of the original cargo carrier LVT1. Mechanically and structurally, the LVT2 had nothing in common with the LVT1, but its design was the result of lessons learned from the original model LVT1. The LVTA1, LVT2, LVTA2, LVT4, LVTA4 and LVTA5 all had many common parts, including the engine, transmission, controls, tracks and suspension system. This fact is a real plus for modelers who wish to build models of all of these historically significant vehicles. The LVT2 was constructed of mild steel and carried an assortment of machine guns mounted on a skate rail system running around the inside upper edge of the cargo compartment and front cab bulkhead wall. The exact caliber and position of these machine guns was left up to each vehicle's crew to decide, as were many other details on individual vehicles.

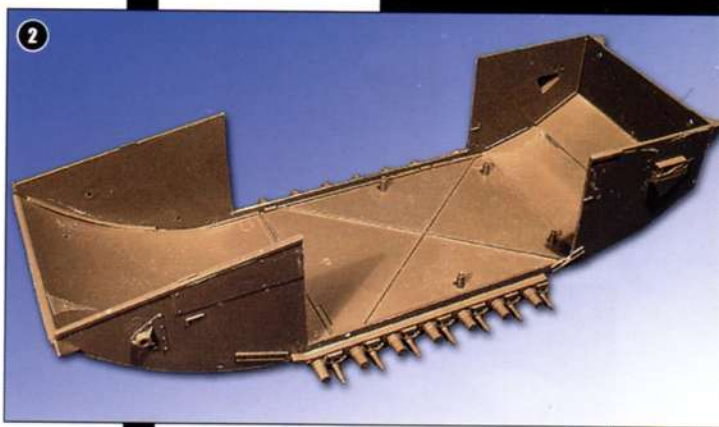
The basic Italeri kit and the Trakz update

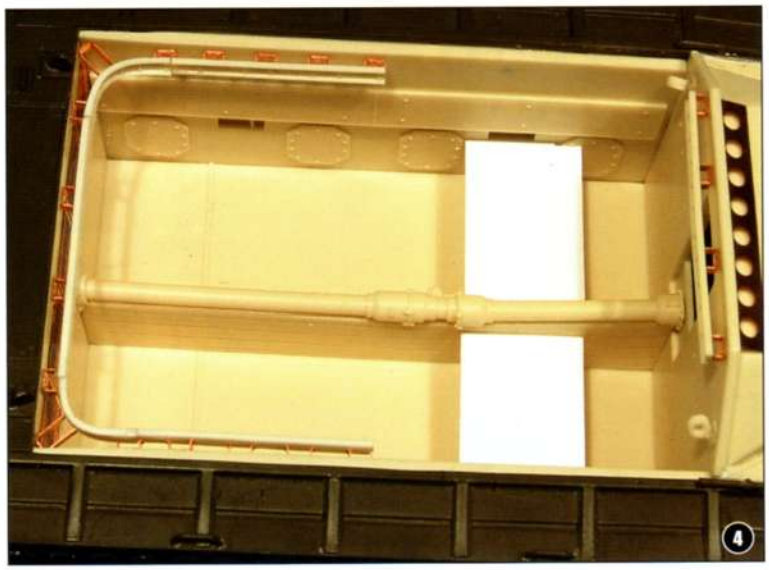
The Italeri LVTA1 is the basic kit that the Trakz LVT2 conversion is designed to be used with. Overall, the basic components of the Italeri kit are quite useable. The lower hull, upper hull, suspension and tracks are all used with little, if any, modifications.

Using the well illustrated instruction sheet as a guide, my first task was to assemble the box or tub that makes up the majority of this resin conversion (**photo one**). As with any conversion kit, it is very important that you test fit the parts before gluing them together. Since this kit requires that you cut away large portions of the Italeri kit, it is wise to test fit the parts several times and mark the cut lines with a permanent felt tip pen. After I cut away the desired areas on the Italeri hull sides, I assembled the Italeri lower hull per the kit's instructions (**photo two**). Fortunately, the necessary cuts in the hull sides are mostly hidden when the side pontoon pieces are glued onto the hull sides. Next, I glued the resin interior tub into the assembled Italeri LVT lower hull (**photo three**).

The machine gun skate rails that run along the rear wall and part of the side walls of the interior were my next task. The trick is once you cut and bend all of the photo-etch mounting brackets, glue them to the resin rail pieces and then glue the rail pieces to the interior walls. I made the two gunner's platforms from sheet plastic and glued them in at the proper height (**photo four**). Since the vehicle I was modeling mounted two .50 caliber machine guns on the front cab bulkhead, I chose to replace the included Trakz machine guns with two of the Tamiya plastic .50's from their 2.5 ton Cargo Truck Accessory Parts Set (kit no. 35231). The Tamiya set also includes a rather nice machine gun







skate rail mount which I liked better than the Trakz supplied part (**photo five**). Because of differences in the front cab's size and shape, the LVT2 requires a new piece to be used on the Italeri upper hull piece. It is a simple task to cut away the Italeri section and replace it with the Trakz supplied item (**photo six**). I was not at all satisfied with the antenna mount on the Trakz replacement part, so I cut the antenna mount off of the original Italeri piece that was cut away (**photo seven**). I sanded off the Trakz antenna mount and carefully glued the Italeri one in its place. I glued the Italeri upper hull piece in place and then attached the resin front cab piece as shown in the Trakz instructions (**photo eight**).

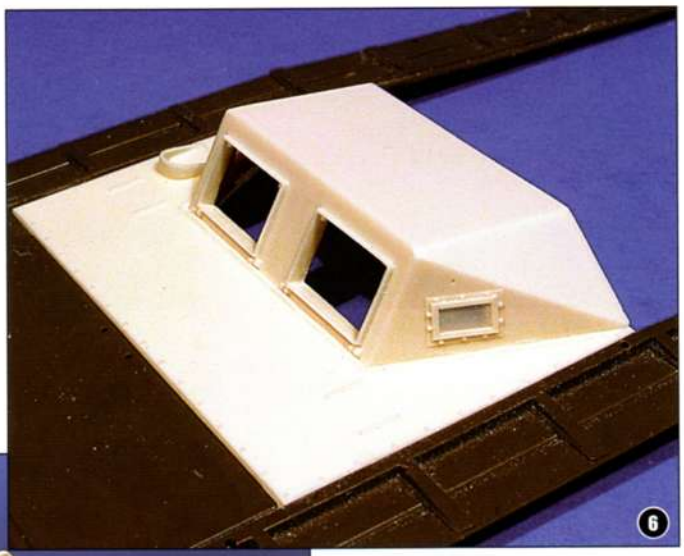
The water deflectors look harder than they turned out to be. Just take your time and test fit the pieces before gluing (**photo nine**). These parts are "handed," so make sure you do not confuse the similar pieces. One of the corrections that needs to be made to the Trakz headlights is that they need to be shortened.

The photo-etched light guards also need to be altered to fit the shortened headlights. The original Trakz headlights were made to replace the overly tall Italeri ones, so the pattern maker mistakenly made the new ones the same height to match the Italeri pieces. Then, when he did the photo-etch artwork he made the light guards match. Fortunately, this is a simple thing for the modeler to fix using the finished model photos in this article.

The Trakz kit includes the early unarmored engine hatch on the photo-etch sheet, I used this part in place of the Italeri later production armored version. I carefully removed the Italeri tow cable brackets for the rear of the hull and replaced them with the Trakz etched parts (**photo nine**).

Other changes

The subject of my model being an early/mid production version of the LVT2 as it appeared at Tarawa in 1943, a few other modifications were necessary. Shortly before the Tarawa invasion, a maintenance team from the 2nd Amtrac Battalion visited Samoa where they were given the task of putting 50 more LVT2's into combat ready condition. These 50 LVT2's were found to be in rather poor shape, having been shipped and stored in the open with full exposure to the elements. Many of the vehicles showed signs of extreme "Joy Riding" and vandalism by the "REMFs." Along with all of the standard maintenance and repair work done to these vehicles, additional armor protection was mounted in the form of sheets of boiler plate steel welded to the front bow and front cab window areas. Using photos for reference, I simply cut these pieces from sheet plastic and added the visible details such as vision slits and rounded corners. I added the



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11

bilge pump exit pipe on the left side pontoon top. I have built several of these LVT based kits and one consistent problem has been the gap where the front upper and lower hull are supposed to meet. This can quickly be fixed with some strip plastic and putty, or by using the bow armor plate. One important tip is to install the tracks on the vehicle before you glue the upper hull to the lower hull. Otherwise, it is really difficult to get the tracks mounted. The other tip is that the drive sprocket mount is really weak, I have had to drill out the drive sprockets and super glue them to a metal rod axle on every Italeri LVT based kit that I have built!

Painting & markings

LVT2's left the factory in the original blue/gray color, so I chose to paint my model in this color first and then weather that with a dark wash of raw umber oil paint. The blue/gray color I used was the Tamiya acrylic Medium Blue XF-18. I always base coat my models with Tamiya acrylics and then weather with oil paint and Humbrol enamel washes. My favorite part of modeling is the painting and weathering process and I really get into it. I will apply thin washes of colors to get desired effects that are not readily apparent to the naked eye. On this vehicle for example, I used a garish lime green color, an orange color, a vibrant blue color and a bright yellow color. These colors leave just a hint of their presence but it really adds depth to the look of the vehicle. I used a Mars Orange oil paint to represent the different rusted metal look and applied Humbrol Khaki Drill and Humbrol 148 (a flesh color) washes over the dried Mars Orange wash. I repeated these washes one over the other until I achieved the desired effect. A Prisma Color PC949 "Metallic Silver" colored pencil was used to apply wear marks and scratches to the vehicle's surfaces. Using the colored pencil requires a real light hand, keeping in mind the tiny scale and random pattern that the scratches need to have to look convincing. You can really ruin a model if you don't develop this technique fully. The markings on this vehicle were all done using the new Trakz vinyl masks (**photos ten & eleven**). I did the research and artwork for the Trakz product and, in my opinion, the vinyl masks are really the way to go whenever possible. Some markings are too small or delicate to be replicated with the vinyl mask method and dry transfer is the next best medium for anything that can't be done in vinyl. With the vinyl mask method, you are free to paint the markings in any color, with care they are reusable and you get both the negative mask and positive template on the same sheet.

Final thoughts

Overall, I am quite satisfied with the results of the finished model that can be built utilizing the Trakz and Italeri kits. Letterman Publications will be publishing my first two books on modeling LVT's in mid 2003. In my next installment I will cover building the Trakz LVTA4 as it appeared on Okinawa in 1945.

—David E. Harper with assistance by Steve Hoard

MMiR RECCE

Italeri LVTA1 Amtank. Kit number 6384. Suggested retail price $35.00.
Trakz LVTA2 Conversion Set. Kit number TX0005. Suggested retail price $46.95. Both kits graciously provided for review by the VLS Corp.

References

It's pretty much the same as last time.

Stuart, A History of the American Light Tank, Volume I by R.P. Hunnicutt, Presidio Press, 1992. ISBN 0-89141-462-2.

US Amtracs and Amphibians at War 1941-45 by Steven J. Zaloga and George Balin, Concord Publications, 2000. A great general reference that is chock full of photos of all the LTV variants. ISBN 962-361-655-4.

U.S. Army Ordinance Supply Catalog Manual SNLG-241, January 1945. Not a tech manual, but rather a parts catalog with tons of close-up shots of the LVT parts.

LVTs at the Front, Allied-Axis The Photo Journal of the Second World War, Number 8. Ampersand Publishing Co., Inc., 2002. No ISBN. MMiR's sister publication includes a comprehensive 42-page article on all the LVTs, featuring 8x10 photos and a restored vehicle. Also written by that Dave Harper guy.

The Model Citizen

Painting WWII German Uniform Camouflage: SS Erbsenmuster
Date Stamp: Exclusively an SS pattern. First appeared in March 1944.

Also known as "pea pattern" and "dot pattern," this camouflage premiered in March 1944, coinciding with the introduction of the camouflage drill uniform for both ground troops and armor crews. The launch of Erbsenmuster also marked the end of both camouflage smock and armored crew overall ("combination") production. Both uniforms initially featured SS sleeve eagles and loops for attaching shoulder boards, but by mid-1944 these items were no longer included at factory level. The bar-type sleeve rank was intended to be worn on these uniforms and all other insignia was eventually banned. However, it is evident from wartime photos that SS troops greatly favored the camouflage drill and regularly affixed epaulettes, sleeve eagles, badges and cuff titles. Trousers for both styles of uniform were originally in the same loose leg pattern as their predecessors, but the tapered ankle Keilhose premiered soon after.

Erbsenmuster was also used on the reversible padded winter uniform and a small group of SS paratroop jump smocks. Although numerous examples demonstrate great innovation in modifying these uniforms, the dot pattern was never used for manufacturing smocks or tank overalls. There is some disagreement as to whether the pattern appeared in two styles (one with smaller, denser dots) and a marked difference can be noted in photographs of preserved specimens.

FIGURE: SS-Unterscharführer from Jaguar #63058, with modified Hornet head from #HH3

Photo 1: I generally prime resin figures by airbrushing a mustard yellow enamel, such as Humbrol 63, 93, or 94. With the head detached, here I used TS-1 Red Brown Tamiya Spray Lacquer right out of the can. A primer coat provides a better tooth for the colors to follow. Several misting coats are advisable and 100% coverage isn't necessary.

Photo 2: The jacket and trousers were then brush painted with Andrea acrylic #41 Wood.

Photo 3: Next is a yellow-brown color, which appears in small dots and larger fields. This was created using a 70/30 mix of Andrea #15 Ochre and #9 Light Flesh. This color, as well as the base brown, varies considerably from russet brown to olive brown and there's quite a bit of latitude based on the age and wear of the uniform.

Photo 4: Scale and seams are two important guidelines in painting camouflage. Find the best possible pattern photos and compare them to photos that approximate the scale you're working in, then adjust your pattern size accordingly. Be wary of seams in the uniform and if they're not on the figure, consider scribing them in for more realism. Paint each section of cloth individually. In this photo, note the break in the pattern in the seat of the trousers.

Photo 5: Next is a dark black-green pattern, which also appears in small dots and larger fields. The dark color used is a 70/30 mix of Andrea #26 Flat Black and #38 Napoleonic Green.

Photo 6: Note that during this phase black-green dots are applied on top of the lighter yellow-brown fields.

Photo 7: Dots of the base color (Andrea #41 Wood) are then painted atop the yellow-brown fields.

Photo 8: Dots of the base color (Andrea #41 Wood) are also painted atop the black-green fields.

Photo 9: Yellow-brown dots are now painted atop the black-green fields.

Photo 10: Next is a pattern of light olive dots, applied with Andrea #3 Olive Green. This color is dots only, sparser than the other colors and there are no larger fields of light olive. A close study of uniform photographs shows what appears to be a darker olive color as well; this is probably a color variation in the material, where the light olive dye reacts with the darker shades.

Photo 11: The light olive dots appear primarily on the base color and are only seen sporadically on the yellow-brown and black-green fields.

Photo 12: A thin wash is then applied to the entire uniform. The wash evens out and subdues all of the colors. In this instance, the wash was made with Grumbacher Gum Spirits of Turpentine with just a touch of Burnt Umber and Burnt Sienna artist oils.

Photo 13: The uniform is then softly drybrushed with artist oils. I prefer subtle highlights and use artist oils, rather than enamels or acrylics, for drybrushing. Oils are smoother, have a longer working time and aren't as chunky. Whites, browns and yellows can be mixed to create a dry brush application for most base colors. Here Titanium White, Yellow Ochre and Raw Umber were mixed for drybrushing.

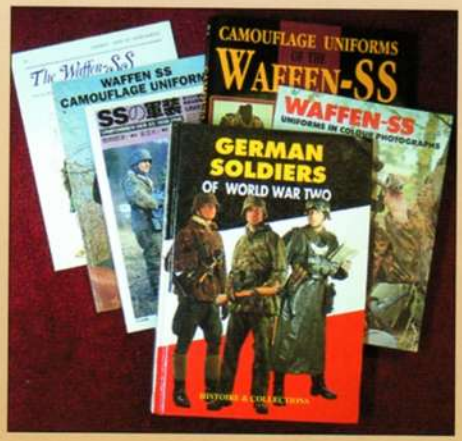

Photo 14: Recesses are then darkened with the original wash color, but here it isn't thinned as heavily. Creases, folds, recesses and seams are all treated with the dark shade.

Photos 15 & lead: The finished figure. Colors of the cap, gloves and toque were all treated in the same way as the uniform. This senior corporal's rank is identified by his shoulder boards and he wears the 1944 black Einheitsfeldmütze with death's head. He wears the SS buckle on his pistol belt and a tank engagement badge is pinned to his jacket. A flare pistol is tucked into his belt. For tips on painting flesh and equipment, see the first Model Citizen in MMiR#22. These photos provide ample evidence that in addition to the age and wear of a uniform, lighting, photography and printing can affect the appearance of a reference photo. So what's the solution? Compare as many reference photos as you can and find a happy medium. Pick a single photo and paint your uniform uniformly, noting the tones of each camouflage color from the same photograph.

—Joe Porter

MMiR RECCE

References

We are unquestionably in the golden age of reference materials. Here are a few favorites for painting SS uniforms.

German Soldiers of World War Two. Histoire & Collections, 1994. The best all-around reference for German uniforms of all types. The gang's all here, including Luftwaffe, Kriegsmarine, Wehrmacht and SS.

Waffen-SS Uniforms in Colour Photographs. Windrow & Greene, 1990. Affordable all-around book on all SS uniforms.

Camouflage Uniforms of the Waffen-SS. Schiffer Publishing, 1995. Expensive but worth it, packed with comprehensive research and photographs.

Uniforms of the SS 1938-1945. Dai Nippon Kaiga/Artbox, 1998. Features numerous complete uniforms plus ample detail photographs.

Waffen-SS Camouflage Uniforms & Post-War Derivatives. Windrow & Greene, 1995. Focuses solely on SS camouflage patterns.

The Waffen-SS. Osprey Publishing, 1982. Provides concise histories of all SS units and features the best SS rank chart ever published.

Collectors interested in purchasing this piece and other finished miniatures can contact jporter@cosmicbovine.com

ACHTUNG! Ausf M

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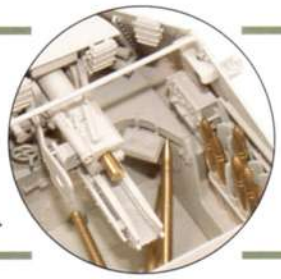

35248 Marder III

35203 Ger. Jagdpanther Late Version

35200 "Wespe" Self Propelled Howitzer

35197 Sturmgeschutz III Ausf G Early

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